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THE VARIETIES OF HUMAN GREATNESS.

A

DISCOURSE

ON THE

LIFE AND CHARACTER

OF THE

Hon. NATHANIEL BOWDITCH, LL.D., F.R.S.,

DELIVERED IN

THE CHURCH ON CHURCH GREEN,

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"His, mihi dilectum nomen manesque verendos,
His saltem accumulem donis, et fungar amico
Munere !—Non totus, raptus licet, optime præses,
Eriperis. Redit os placidum, moresque benigni,
Et venit ante oculos, et pectore vivit imago."

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TO

THE CHILDREN

OF

MY DEPARTED PARISHIONER AND FRIEND,

THIS DISCOURSE

IS

AFFECTIONATELY INSCRIBED.

If any apology should be deemed necessary for the freedom and frequency with which I have introduced into this Discourse quotations from the old writers, (most of the longer ones having been omitted in the delivery), I would plead in my defence the following judgment of Coleridge:—

"Why are not more gems from our early prose writers scattered over the country by the periodicals? Great old books by the great old authors are not in every body's reach; and though it is better to know them thoroughly than to know them only here and there, yet it is a good work to give a little to those who have neither time nor means to get more. Let every book-worm, when in any fragrant, scarce old tome, he discovers a sentence, an illustration, that does his heart good, hasten to give it."

DISCOURSE.

1 Chronicles, XXIX. 12.

IN THINE HAND, O LORD, IS POWER AND MIGHT; AND IN THINE HAND IT IS TO MAKE GREAT, AND TO GIVE STRENGTH UNTO ALL.

In nothing, as it seems to me, is the sovereignty of God more strikingly displayed, than in the diversities of personal endowment, and the consequent varieties of human greatness. Man, with his limited and short-sighted wisdom, aims, in all his plans and operations, and especially in his modes of intellectual and moral culture, at uniformity. If he could have his own way, and there were no conflicting and counteracting influences in nature, he would, in his systems of education, run us all in the same moulds, shape us in the same unvarying and inflexible forms, and send us out into the world exact counterparts and copies of one another. But Divine Providence, in the plenitude and profusion of its power, seems, throughout the whole extent of creation, to pursue an entirely opposite course, and to delight in variety. The naturalist tells us that in the vegetable kingdom no single leaf is exactly like its fellow, and we know on whose testimony it is that we believe that

"one star differeth from another star in glory." There are, too, the same varieties of human power and greatness, as there are inequalities on the earth's surface, gradations in the scale of animal life, and diversities in the instincts and capacities of the several races of the brute creation.

It is the doctrine of my text, that "it is in the Lord's hand to make great." All power and might are his, and all human greatness, of every sort and degree, physical strength, intellectual vigor, genius, talent, wisdom, are all alike his gifts. He is the author of all the powers and faculties of man, from the highest to the lowest; which, accordingly, in their several places and appropriate degrees, are all to be honored and cultivated. It is a narrow and unworthy feeling to disparage any of these divine endowments, or to despise any of the various indications of human power and greatness. The mind must not say to the body, "I have no need of thee;" nor yet the senses to the spirit, "We have no need of you." For man is not one power or faculty, but many. It behooves every one, then, to stir up and cultivate the peculiar gift of God which is in him, and thereby cause a various tribute of glory to ascend from earth to heaven. For God is truly glorified by the full developement and right exercise of our several faculties, and by their consecration to the increase and diffusion of knowledge, virtue and happiness on the earth. Not in vain is this prodigal variety of human gifts, if God be honored and man blessed by it.

Let us, my hearers, take a survey of some of the prominent varieties of human greatness. Let us see how they have been viewed and estimated. Let us look at them as so many manifestations of divine energy in man.

In the first place, and at the lowest point of the scale, stands physical greatness, strength of body, power of limb, capacity of labor and endurance, material energy and force. At some periods in the world's history, and at certain stages of man's growth, before the mental and moral faculties were unfolded, and the higher principles of our nature had gained the ascendency, and civilization spread her restraining and refining influences, this species of greatness has been the most in honor and demand. When the earth was one vast forest, and the wild beast prowled on the frontiers of the infant settlements, and waged a desperate and hardly unequal warfare with man, then physical strength was, of course, alone cultivated and prized. The great ones of that period were the men of giant frames, and tough muscles, and arms of iron—the Samson and the Hercules of their tribe. The primitive, or as we choose to call it, the fabulous history of our race, is full of the marvellous exploits of these renowned heroes, who protected the rising hamlets, with their flocks and herds, from the depredations of the wild boar and the wolf. In the early annals of almost every nation, ancient and modern, we meet with a great man of this sort, who, by mere physical strength, cleared the land of some ferocious animal,

the terror of the surrounding villages, and thereby gained for himself everlasting gratitude and fame. St. George, the tutelary saint of England, was only the great dragon-slayer of his day.

We come down a little later in the history of our race, and we find another form of greatness, closely allied to the preceding, beginning to display itself—namely, martial prowess, or, as it was originally and distinctively called, warlike virtue. Hardly are the wild beasts exterminated, than there springs up, as it were from the dragon's blood and teeth, a horde of oppressors, strong, proud men, who declare that their strength shall be the law of justice, and that their might shall rule in the earth—men who wrong the poor, spare not the widow, nor reverence the grey hairs of the aged. These are the sons of Anak and Belial, whose continued and aggravated oppressions at last raise up an indignant band, who, though inferior in muscular strength, are enabled, by the invention of weapons, and by their superior agility and skill, to put themselves on a level with these haughty oppressors, and cope with them in personal combat. They become the guardians of innocence, the avengers of wrong, the giant-quellers of their day—in a word, the great men of their time. In a later age, the institution of chivalry was only the reproduction of the same remedy on the recurrence of the same evil. In both cases the feeble and the friendless were generously protected against outrage by the strong and stout-hearted.

Here we have the germ of military greatness, which, as soon as war was made a business, and bloodshed a pastime, became the greatest curse that ever afflicted our race. From the earliest times down to those in which we live, martial glory has, in every age, continued to dazzle the eyes of the stupid world; and I know not but that even now, after the dear-bought and bitter experience of ten thousand battle-fields, military greatness, in the opinion of the majority of men, stands at the head of all greatness. The fame of the Cæsars, the Attilas, and the Napoleons, the great manslayers, still sheds a blighting and baleful influence over the prospects of humanity, as their bloody victories did over the pleasant fields of an industrious peasantry.*

But let us pass on from these exhibitions of physical greatness to the higher and nobler manifestations of human power. Physical strength man shares in common with the brute; but the "spirit within him is the candle of the Lord," kindled from the great source of light, and "the inspiration of the Almighty hath given him understanding." When, therefore, we would conceive worthily of man, we think of him as an intelligent

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* See Southey's beautiful little poem on the Battle of Blenheim.

"They burned the country all around,
And wasted far and wide,
And many a new-born infant there,
And tender mother died;—
But things like this you know must be
At every famous victory."

being, possessed of vast capacities, comprehending the universe in his ken, and "with large discourse looking before and after." And when we would form an idea of a superior kind of greatness, we think of the giants of intellect, of Aristotle and Bacon, the great lights of philosophy and science, men who have enlarged the domains of thought and carried forward the human race with them; though at the same time they themselves "stride on so far before the rest of the world that they dwindle in the distance."

Of all the various branches of intellectual pursuit, that science which explains the system of the universe, and reveals the mechanism of the heavens, must always take the lead as the most sublime and marvellous; and the foremost and most successful cultivators of this science will always be classed among the greatest of men. What, indeed, can be more astonishing, than that a being like one of us, endowed apparently with no higher or different powers, should be able to obtain so minute and accurate a knowledge of those distant planets, and be as well acquainted with their constitution, elements, and laws, as the geologist, the chemist, the botanist, with the appropriate objects of their sciences? Nothing gives me so exalted an idea of the power of man, and the extent and reach of his capacities, as his ability to calculate, with unerring precision, the distances of those twinkling orbs, to determine their figures, magnitudes, and velocities, to measure their weight, estimate their relative attractions and disturbing forces, delineate their

orbits, register their laws of motion, fix the times of their revolution, and predict the periods of their return. To a common mind, uninstructed in the science, there is nothing that appears so much like divine wisdom. A Galileo, a Kepler, a Newton, seem to him to belong to another race, a higher order of beings. They appear to possess some additional faculties. "What a vast interval, indeed, from the imperfect notions of the Chaldean shepherd and the Phœnician mariner to the 'Celestial Mechanics' of a La Place!"

It is a remarkable fact, that the majority of men, certainly of uneducated men, are utterly incredulous to the statements of astronomical science. "Tell a plain countryman," says Bishop Hall, "that the sun, or some higher or lesser star, is much bigger than his cart wheel, or at least so many scores bigger than the whole earth, he laughs thee to scorn, as affecting admiration with a learned untruth; yet the scholar, by the eye of reason, doth as plainly see and acknowledge this truth, as that his hand is bigger than his pen." Indeed, nothing can be more certain than the doctrines of Astronomy. They rest on impregnable foundations, on the demonstrations of mathematical evidence, than which nothing, except the evidence of consciousness, can be more satisfactory and conclusive.

"Happy," says Gilbert Wakefield, "that man who lays the foundations of his future studies deep in the recesses of geometry,—that 'purifier of the soul,' as Plato called it,—and in the principles of mathematical

philosophy; compared with whose noble theories (I make no scruple to declare it) our classical lucubrations are as a glimmering of a taper to the meridian splendors of an equatorial sun. What subject of human contemplation shall compare in grandeur with that which demonstrates the trajectories, the periods, the distances, the dimensions, the velocities and gravitations of the planetary system; states the tides; adjusts the nutation of the earth, and contemplates the invisible comet wandering in his parabolic orb, for successive centuries, in but a corner of boundless space?—which considers that the diameter of the earth's orbit, of one hundred and ninety millions of miles in length, is but an evanescent point at the nearest fixed star to our system;—that the first beam of the sun's light, whose rapidity is inconceivable, may be still traversing the bosom of boundless space? Language sinks beneath contemplations so exalted, and so well calculated to inspire the most awful sentiments of the Great Artificer; of that Wisdom which could contrive this stupendous fabric, that Providence which can support it, and that Power whose hand could launch into their orbits bodies of a magnitude so prodigious."*

It was a science that early engaged the notice of men, and, to its honor be it spoken, it has always exerted a purifying and elevating influence on its votaries. Indeed, how could it be otherwise? Who can look

* Gilbert Wakefield's Memoirs, I. 103.

upon those brilliant points, and not fancy them the spangled pavement of a divine abode? There is virtue as well as poetry and philosophy in them. They shed down a healing and restorative influence upon their worshippers. They are the symbols of endurance and perpetuity. "When I gaze upon the stars, do they not seem to look down on me as if with pity from their serene spaces, like eyes glistening with heavenly tears over the little lot of man? Thousands of human generations, all as noisy as our own, have been swallowed up of time, and there remains no wreck of them any more; and Arcturus, and Orion, and Sirius, and the Pleiades are still shining in their courses, clear and young, as when the shepherd first noted them in the plain of Shinar."

Another variety of human greatness is practical talent; by which I understand a talent for business, skill in affairs, a faculty of compassing ends and of swaying the judgments and wills of others, and compelling them to execute our purposes and behests. This, unquestionably, is a high endowment, enabling its possessor, when it is skilfully used, to wield a mighty influence and to bring about vast results. At the present day, it is in great repute, and perhaps is more estimated than any other species of talent, far more, I think, than it intrinsically deserves. For often it is a minute species of wisdom, narrow in its views, limited in its plans, and selfish in its aims. The mere practical man is, after all, but an imperfect specimen of humanity. He is little

fitted, by his habits of thought and action, to manage public affairs, discuss the great questions of morals or government, or legislate on the complicated interests of a people. The author of the book of Ecclesiasticus says of such men, "Without these a city cannot be inhabited, and they will maintain the state of the world. But they shall not be sought for in public council, nor sit on the judges' seat; they cannot declare justice and judgment." And the most popular writer of the present age observes, "those who live in public business, and of course in constant agitation and intrigue, know but little about the real and deep progress of opinions and events. Immersed in little political detail and the struggling skirmish of party, they seem to lose sight of the great progressive movement of human affairs. They put me somewhat in mind of a miller, who is so busy with the clatter of his own wheels, grindstones, and machinery, and so much employed in regulating his own artificial mill-dam, that he is incapable of noticing the gradual swell of the river from which he derives his little stream, until it comes down with such force as to carry his whole manufactory away before it." *

Let it be remembered that I have been speaking of *mere* practical talent. When, however, this is combined with intellectual power, and guided by humane and benevolent feelings, then is manifested a species of moral greatness, from the influence of which the most important and beneficial results have redounded to the

* Lockhart's Life of Scott, Vol. V. Chapter 7.

world. It becomes the instrument of advancing civilization, improving the condition of our race, mitigating the woes of humanity, lessening the dangers and exposures of life, and prolonging the term of human existence. For my own part, I would rather have been the discoverer of vaccination, the inventor of the safety-lamp, or the author of the "Practical Navigator," than stand at the head of all the merely speculative philosophers and theorists that have ever lived. The names of Jenner, and Davy, and Howard, the preservers and benefactors of their species, in real greatness how do they transcend those of the famous military heroes, the destroyers of their fellow-men! Burke mentions it as the high praise of Howard, that "he visited all Europe to take the gauge and dimensions of misery;" and he adds that "his plan was as full of genius as of humanity." "Maria d'Escobar," we are told by Sir James Mackintosh, "a Spanish lady, first brought a few grains of wheat into the city of Lima. For three years she distributed their produce among the colonists, giving twenty or thirty grains to each farmer. By this supply of food she brought into existence more human beings than Napoleon destroyed. If she had come from Egypt to Attica in the earlier days of Grecian history, she would have been a goddess. Sir John Malcolm introduced potatoes into India. That benefit may be remembered long after his Persian mission is forgotten. If Lord Wellesley had accomplished the abolition of infanticide, his name would have been held in everlast-

ing remembrance. All the negotiations and wars, which appear so splendid at present, will, in a history of twenty years hence, not occupy ten pages. So nearly, in some parts of human conduct, does the distribution even of fame agree with the dictates of that eternal justice which declares, that whosoever shall give to drink to one of these little ones a cup of cold water, shall in no wise lose his reward. The smallest act of benevolence, especially of benevolence towards those who spread truth, is sure to reward itself, and is likely to be praised by future generations."

We come at last to the highest species of human greatness, namely, pure moral and spiritual greatness. Would we view man in his noblest aspect, we must turn from mere physical operations and intellectual pursuits, and survey his moral and spiritual nature. "The proper study of mankind is man." The noblest of sciences is moral science; the highest philosophy is the philosophy of man's spiritual nature; and the most glorious exercise of his powers is in developing and cultivating his religious instincts. The man who devotes himself, singly and earnestly, to the cultivation of moral principle and spiritual truth, who labors to extend through the community a reverence for right, duty and virtue, and by the persuasive influence of his own example and the deep fervor of his own cheerful and unaffected piety, diffuses all around him the same trusting confidence in God and the same unwavering reliance upon a benignant Providence that fill his own

bosom—that man seems to me to have attained to the highest endowments of human nature, and reached the summit of earthly greatness. And it is worthy of remark that this was the sentiment of the most illustrious and successful investigator of chemical science which this age has produced—I mean Sir Humphry Davy. "I envy," says that great philosopher, "no quality of the mind or intellect in others; not genius, power, wit, or fancy. But if I could choose what would be most delightful, and, I believe, most useful to me, I should prefer a firm religious belief to every other blessing. For it makes life a discipline of goodness, creates new hopes when all earthly hopes vanish, and throws over the decay, the destruction of existence, the most gorgeous of all lights; awakens life even in death, and from corruption and decay calls up beauty and divinity; makes an instrument of torture and of shame the ladder of ascent to paradise; and, far above all combinations of earthly hopes, calls up the most delightful visions of palms and amaranths, the gardens of the blest, the security of everlasting joys, where the sensualist and the skeptic view only gloom, decay, annihilation, and despair."

You have doubtless perceived, my hearers, long ere this, that the train of my remarks has been suggested by the solemn event which has recently deprived this community of one of its most efficient and valuable

members, this congregation of one of its firmest pillars, and the scientific world of one of its noblest ornaments. A great light has suddenly gone out while it was yet beaming brightly and beneficently on the world. An eminent man has fallen in the midst of us—one whom God had made singularly great in more than one of the departments which I have just specified. His position as a public man, the various posts and offices which he filled, his relation to the University and to other literary institutions and philosophical societies, and the prominent place which he confessedly occupied at the head of the scientific men of this western continent, are sufficient,—apart from any private considerations, or feelings of personal respect,—to justify the notice which I now propose to take of his life and character. There was much in that life instructive and encouraging, particularly to the young, the friendless, the poor. There was much in that character worthy of eulogy and imitation. Let me speak out my impressions and recollections of him with that simplicity and frankness which he loved.

The late NATHANIEL BOWDITCH was born at Salem, in the Commonwealth of Massachusetts, on the 26th day of March, 1773. He was the fourth child of Habakkuk and Mary Ingersoll Bowditch. His ancestors, for three generations, had been shipmasters, and his father, on retiring from that "perilous mode of hard industry," carried on the trade of a cooper, by which he gained a

scanty and precarious subsistence for a family of seven children.*

I had a curiosity to trace up the life of this wonderful man, if possible, to his childhood, to ascertain his early character and powers, and the influences under

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* The names of the children were (I mention them in the order of their ages) Mary, Habakkuk, Elizabeth, NATHANIEL, William, Samuel, and Lois. William, who died in 1799, at the age of twenty-three, is said to have been quite as remarkable, in his childhood, as Nathaniel. They seem to have been a short-lived race, five of them having died before the age of twenty-three, and the eldest in 1808, at the age of forty-two. The old ladies, mentioned hereafter, told me the melancholy tale that they recollected seeing two of the daughters, Mary and Lois, both of them married women, pining away with a consumption in the same room, and dying within a few months of each other. Nathaniel was about the same time, 1808, at the age of thirty-five, attacked with a severe hemorrhage at the lungs. In consequence of this he took a journey with his friend, the Hon. Thomas W. Ward, now of this city; and on their arrival at Dedham, so feeble did he appear, that the compassionate innkeeper asked Mr. Ward where his friend belonged, and advised him to return home immediately, for he doubted whether he would live to reach the next inn. Not long after his removal to Boston he fell twice suddenly in the street, which excited the most alarming apprehensions in the minds of his friends, they fearing that he might at any time be taken off by apoplexy. But Dr. Bowditch ascertained by experience that this falling was occasioned by his walking immediately after dinner. He accordingly postponed his walk to a later hour in the day, and never had a recurrence of the complaint. Earlier in life, in consequence of poring over figures whilst sitting up to watch with a friend, he was attacked with inflammation and weakness of the eyes, which compelled him to favor them for two years. All these things should be taken into consideration in forming a just estimate of the amount and extent of his labors. He never would have been able to accomplish so much without the strictest regularity in diet and exercise.

which his heart and mind had been formed. Accordingly, on a recent visit to Salem, I took a walk, of some two or three miles, to see a house where he used to say that he and his mother had lived when he was as yet hardly advanced beyond infancy. My walk brought me among the pleasant farm-houses of a retired hamlet in Essex county; and I found the plain two-story house, with but two rooms in it, where he dwelt with his mother; and I saw the chamber-window where he said she used to sit and show him "the new moon with the old moon in her arm," * and, with the poetical superstition of a sailor's wife, jingle the silver in her pocket that her husband might have good luck, and she good tidings from him, far off upon the sea. I entered that house and two others in the vicinity, and found three ancient women who knew her well, and remembered her wonderful boy. I sat down by their firesides and listened with greedy ear to the story, which they gladly told me, of that remarkable child, remarkable for his early goodness as well as for his early greatness. Their words, uttered in the plain, hearty English of the yeomanry of Massachusetts, uncorrupted by the admixture of any foreign gibberish,† I took down from

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* See the grand old ballad of "Sir Patrick Spens," the oldest in the language, in Percy's Reliques, Allan Cunningham's Scottish Songs, or Sir Walter Scott's Minstrelsy of the Scottish Border.

† What a pity it is that our noble language, of itself adequate to all purposes, should be in such danger of being converted into a Babylonian jargon of French and German. The late "History of the French Revo-

their lips, and now give them without any alteration or improvement.

There were three of these women, it will be recollected; and the accounts which they severally gave, both of the child and his mother, perfectly coincide, as will be seen, without any discrepancy, and therefore mutually confirm one another's statement of things and appearances as they existed upwards of sixty years ago. The boy was at this time about three years old.

The first one that I saw and interrogated said that Nat. was "a beautiful, nice, likely, clever, thoughtful boy. Learning came natural to him; and his mother used to say that he would make something or nothing." I asked her whether she had ever heard what became of him. "O yes," she replied, "he became a great man, and went to Boston, and had a mighty deal of learning." "What kind of learning?" I asked. "Why," she answered, "I believe he was a pilot, and knew how to steer all the vessels." This evidently was her simple and confused idea of "The Practical Navigator."

The second old lady stated that "Nat. went to school to her aunt, in the revolutionary war, in the house where we were sitting, when he was about three years

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lution," in many respects a noble work, would stand some chance of going down to posterity, had it been written in the English tongue—for although some of the words may be Saxon, yet the idiom throughout is any thing but English. A man who has shown himself capable, in his beautiful Life of Schiller, of writing in a simple and pure style, ought to be ashamed of these miserable affectations.

old, and that she took mightily to him, and that he was the best scholar she ever had. He learnt amazing fast, for his mind was fully given to it. He did not seem like other children; he seemed better. His mother was a beautiful, nice woman."

The third old lady said that "Nat. was a little, still creature; and his mother a mighty free, good-natured woman. She used to say, 'Who should n't be cheerly if a Christian should n't?' Her children took after her, and she had a particular way of guarding them against evil."

These I testify to be their very words, as I pencilled them down at the time. And they show, I think, very clearly, the influence of the mother's mind and heart upon the character of her son. Of that mother, in after life, and to its close, he often spoke in terms of the highest admiration and the strongest affection, and in his earnest manner would say—"My mother loved me—idolized me—worshipped me."*

After leaving the dame's school, the only other instruction he ever received was obtained at the common public schools of his native town, which were then very inferior to what they have since become, being wholly

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* These circumstances concerning the childhood of Dr. Bowditch were obtained since the delivery of the Discourse, but are inserted in this place as interesting facts, worth preserving, as indicative of his early capacities and character. No apology, I trust, will be needed for the minuteness with which I have detailed them. To his future biographer they will be invaluable, and for his use chiefly were they gathered up and preserved.

inadequate to furnish even the groundwork and elements of a respectable education. I have heard it stated, on the authority of one of his schoolfellows, that the only book in their school was a dictionary,* which belonged to the master, who gave out the words from it to be spelt by the boys. I have likewise been told by one who lived in Salem at the time, that the master of this school, an Irishman, by the name of Ford, a person of violent and passionate temper, gave young Bowditch, when he was about five or six years old, a very difficult sum in arithmetic to perform. His scholar went to his desk, and soon afterwards brought up his slate with the question solved. The master, surprised at the suddenness of his return, asked him who had been doing the sum for him; and on his answering "Nobody—I did it myself," he gave him a severe chastisement for *lying*, not believing it possible that he could, of himself, without any assistance, perform so difficult a question. It is believed that he did not afterwards have the grace to ask the pardon of his quick-witted pupil.

It was highly honorable to him, that although he had not himself enjoyed the benefits of a liberal or learned education, he felt the importance and acknowledged the value of it; and accordingly gave to his children the best which the country afforded, and took a deep inter-

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* Speaking of the dictionary, it may be worth stating that Dr. Bowditch had upwards of a hundred dictionaries, of different kinds, in his library.

est, and, for many years, an efficient agency in the concerns of its principal University.*

But the advantages of school, such as they were, he was obliged to forego at the early age of ten years, "his poverty and not his will consenting," that he might go into his father's shop and help to support the family. He was soon, however, transferred as an apprentice to a ship-chandler, in whose shop he continued until he went to sea, first as a clerk, afterwards as supercargo, and finally as master and supercargo jointly. It was whilst he was in the ship-chandler's shop that he first manifested that strong bent, or what is commonly called an original genius, for mathematical pursuits. Every moment that he could snatch from the counter, was given to the slate. An old gentleman, who used frequently to visit the shop, said to his wife, one day, on returning home, "I never go into that shop but I see that boy ciphering and figuring away on his slate, as if his very life depended upon it; and if he goes on at this rate, as he has begun, I should not at all wonder if, at last, in the course of time, he should get to be an almanac-maker!"—this being, in his view, the summit of mathematical attainment.

From his earliest years, indeed, he seems to have had an ardent love of reading, and he has been heard to say that, even when quite young, he read through a

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* Dr. Bowditch was elected a Fellow of the Corporation of Harvard College in 1826, and held that place at the time of his death.

whole Encyclopedia, from beginning to end, without omitting a single article.*

He sailed on his first voyage, on the 11th of January, 1795, at the age of twenty-two, in the capacity of captain's clerk, on board the ship Henry, of Salem, owned by Elias Hasket Derby, Esq., and commanded by Captain Henry Prince, who still lives to glory in the fame of his clerk.† Captain John Gibaut, with whom young Bowditch had been engaged the year before in taking a survey of the town of Salem,‡ had previously been appointed to the command of the ship, and had invited his friend to accompany him as clerk. He consented; but in consequence of some misunderstanding subsequently springing up between the owner of the ship and Captain Gibaut, he relinquished the command, and of course his agreement with his friend was at an end. Mr. Derby, however, on the appointment of Capt. Prince, said to him, "Do you know young Bowditch?" "Yes, very well." "How should you like to have him go in the ship with you?" "I should like it above all

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* Since the last page was struck off, I have ascertained that after he left the ship-chandlery, kept by Messrs. Ropes & Hodges, he was for some time a clerk in the grocery store of Samuel C. Ward, at which time he was able to calculate the eclipses of the moon, and most of the phenomena recorded in the almanacs of that day.

† Captain Prince was present when this discourse was repeated in the First Church in Salem, on the afternoon of the same day that it was delivered at Church Green, in Boston.

‡ Captain Gibaut used to say, that he depended entirely upon his young friend for taking the angles.

things," said the captain. He accordingly went on board as clerk, although his name was entered on the shipping-papers as second mate. The ship sailed for the Isle of Bourbon, and returned home after an absence of exactly one year.

His second voyage was made as supercargo, on board the ship Astræa, of Salem, belonging to the same owner, and commanded by the same captain. The vessel sailed to Lisbon, touched at Madeira, and then proceeded to Manilla, and arrived at Salem in May 1797.

At Madeira, the captain and supercargo were very politely received by Mr. Pintard, the American consul there, to whose house the ship was consigned, and were frequently invited to dine with his family. Mrs. Pintard had heard from another American shipmaster that the young supercargo was "a great calculator," and she felt a curiosity to test his capacities. Accordingly, she said to him one day at dinner, " Mr. Bowditch, I have a question which I should like to have you answer. Some years since," naming the time, "I received a legacy in Ireland. The money was there invested, and remained some time on interest; the amount was subsequently remitted to England, where the interest likewise accumulated; and lately the whole amount has been remitted to me here. What sum ought I to receive?" She of course mentioned the precise dates of the several remittances, as she went along. Mr. Bowditch lay down his knife and fork, said it was a

little difficult, on account of the difference of currency and the number of the remittances; but squeezing the tips of his fingers, he said, in about two minutes, "The sum you should receive is £843 15*s.* 6¼*d.*" "Well, Mr. clerk," said Mrs. Pintard to the head clerk of the house, an elderly person, who was esteemed a very skilful accountant, "you have been figuring it out for me on paper; has he got it right?" "Yes, Madam," said the clerk, taking his long calculation out of his pocket, "he has got it exactly. And I venture to say, that there is not another man on the island that can do it in two hours."

In August, 1798, he went in the same ship with Capt. Prince, on his third voyage, to Cadiz, thence to the Mediterranean, loaded at Alicant, and arrived at Salem in 1799.

On the voyage from Cadiz to Alicant, they were chased by a French privateer, and having a strong armament of nineteen guns, they prepared for action. The post assigned to Bowditch was the cabin, and his duty was to hand the powder upon deck. In the midst of the preparations for the engagement, Captain Prince had a curiosity to look into the cabin, and see whether all things were going on right there; and, to his astonishment, he found Bowditch calmly sitting at the table, with his slate and pencil, and figuring away, as usual. The thing was so ludicrous, that Captain Prince burst out a laughing, and said, "Well, Mr. Bowditch, can you be making your will now?"

"Yes," was his good-natured reply. After this affair, (the French privateer having hauled off without molesting them) the supercargo requested to be stationed at one of the guns, and his request was granted. Captain Prince testifies, that in all cases of danger, he manifested great firmness and presence of mind.

The fourth and last voyage which they made together, was in the same ship, from Boston to Batavia and Manilla. They sailed in August, 1799, and arrived there in September, 1800.

On their arrival at Manilla, a Scotchman, by the name of Murray, asked Captain Prince how he contrived to find the way there, through such a long, perplexing, and dangerous navigation, and in the face of the north-east monsoon, by mere dead reckoning, without the use of lunars,—it being a common notion at that time, that the Americans knew nothing about working lunar observations. Captain Prince told him that he had a crew of twelve men, every one of whom could take and work a lunar observation as well, for all practical purposes, as Sir Isaac Newton himself, were he alive. Murray was perfectly astounded at this, and actually went down to the landing-place one Sunday morning to see this *knowing* crew come ashore.*

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* One of the most characteristic and amusing nautical anecdotes that it has ever been my good fortune to meet with, is contained in the fourth volume of Baron Zach's "*Correspondance Astronomique*," page 62.

Mr. Bowditch was present at this conversation, and as Captain Prince says, sat "as modest as a maid," said not a word, but held his slate-pencil in his mouth. Another person on the island, a broker, by the name of

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It is so good that I thought it worth translating, and now venture to append it in a note, notwithstanding its length. The Baron is relating the sensation caused at Genoa, by the arrival there, in 1817, of that splendid packet, the "Cleopatra's Barge," owned by George Crowninshield, Esq. of Salem. He says that he went on board, with all the world, "and it happened," to use his own words, "that in inquiring after my friends and correspondents at Philadelphia and Boston, I mentioned, among others, the name of Mr. Bowditch. 'He is a friend of our family and our neighbor at Salem,' replied the captain, a smart, little old man, 'and that young man whom you see there, my son, was his pupil; in fact, it is he, and not myself, who navigates the ship. Question him a little, and see if he has learnt any thing.' Our dialogue was as follows:—'You have had an excellent teacher of navigation, young man; and you could not well help being a good scholar. In making the Straits of Gibraltar, what was the error in your reckoning?' The young man replied, 'Six miles.' 'You must then have got your longitude very accurately; how did you get it?' 'First by our chronometers, and afterwards by lunar distances.' 'What! do you know how to take and calculate the longitude by lunar distances?' The young captain seemed somewhat nettled at my question, and answered me with a scornful smile—'*I* know how to calculate the longitude! Why, our *cook* can do *that!*' 'Your *cook!*' Here the owner of the ship and the old captain assured me that the cook on board could calculate the longitude very well, that he had a taste and passion for it, and did it every day. 'There he is,' said the young man, pointing with his finger to a negro at the stern of the ship, with a white apron before him, and holding a chicken in one hand and a butcher's knife in the other. 'Come forward, Jack,' said the captain to him; 'the gentleman is surprised that you can calculate the longitude; answer his questions.' I asked him, 'What method do you use to calculate the longitude by lunar distances?' His answer was, 'It's all one to me: I use the methods of Maskelyne, Lyons, Witchel, and Bowditch; but, upon the

Kean, who was present, said to Murray, "If you knew as much as I do about that ship Astræa, you would'nt talk quite so glib." "Why not? what do you know about her?" "Why, sir, I know that there is more knowledge of navigation on board that ship, than there ever was in all the vessels that ever floated in Manilla Bay."

The knowledge which these common sailors had acquired of navigation, had been imparted to them by the kindness of Mr. Bowditch. Captain Prince says that one day the supercargo said to him, "Come, Captain, let us go forward and see what the sailors are talking about, under the lee of the long-boat." They went forward accordingly, and the Captain was surprised to find the sailors, instead of spinning their long yarns,

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whole, I prefer Dunthorne's; I am more used to it, and can work with it quicker.' I could not express my surprise at hearing this black face talk in this way, with his bloody chicken and knife in his hand. 'Go,' said Mr. Crowninshield to him, 'lay down your chicken, bring your books and your journal, and show the gentleman your calculations.' The cook soon returned with his books under his arm. He had Bowditch's Practical Navigator, The Requisite Tables, Hutton's Tables of Logarithms, and the Nautical Almanac. I saw all this negro's calculations of the latitude, the longitude, and the true time, which he had worked out on the passage. He answered all my questions with wonderful accuracy, not in the Latin of the caboose, but in the good set terms of navigation. This cook had been round the world, as cabin-boy, with Captain Cook in his last voyage, and was well acquainted with the particulars of his assassination at Owhyheè, on the 14th of February, 1779."

earnestly engaged with book, slate and pencil, and discussing the high matters of tangents and secants, altitudes, dip, and refraction. Two of them, in particular, were very zealously disputing, one of them calling out to the other, "Well, Jack, what have you got?" "I've got the *sine*," was the answer. "But that an't right," said the other, "*I* say it is the *cosine*." *

I am happy to be able to corroborate the statements of Captain Prince, by the testimony of a gallant officer† in our navy, who sailed in the Astræa the two last voyages to Alicant and Batavia. In a letter recently written, with the sight of which I have been favored, after speaking in terms of the warmest gratitude of the kindness and attention with which Mr. Bowditch treated him, when a poor sea-sick cabin-boy, and ac-

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* Besides these four voyages with Captain Prince, Dr. Bowditch made two others, as I have before remarked, the last in the combined capacities of supercargo and master. Captain Prince says, that although he had such a thorough knowledge of navigation, he knew but little about what is technically called *seamanship*. He also mentions the fact, which he had often heard him repeat, that although, in his youth, he had long lived in the vicinity of the ship-yards, he had never seen a launch; and rather scouted the idea that such a sight, or any thing like it, should be able to draw him away from his books. Captain Prince likewise testifies that during the whole course of these four voyages, he does not recollect the slightest interruption of harmony and good feeling between them.

† Charles F. Waldo, Esq. sailing-master in the United States' Navy, now stationed at the Navy Yard in Charlestown. He was wounded in the engagement between the Constitution and the Java.

knowledging his great obligations to him for instructing him in navigation, he goes on to say that it was Mr. Bowditch's practice to interest himself in all the sailors on board, and to take pains to instruct all who could read and write, in the principles of navigation. The consequence of this was, that every one of those twelve sailors, who could read and write, subsequently rose to the rank of captain or chief mate of a ship. Indeed, at Salem, it was considered the highest recommendation of a seaman, that he had sailed in the same ship with Mr. Bowditch, and this fact alone was often sufficient to procure for him an officer's berth. In illustration of this statement, he mentions the fact that on his second voyage the first and second mates had been sailors in the same ship on the previous voyage. He also speaks of Mr. Bowditch's urbane and gentlemanly deportment to every one on board, and says that he never appeared so happy as when he could inspire the sailor with a proper sense of his individual importance, and of the talents he possessed, and might call into action.

Capt. Prince relates a little incident that occurred under his observation, that is worth preserving. In the year 1796, there was an Englishman in Boston, who called himself a professor of mathematics. He boasted a great deal about his mathematical knowledge, and said that he had not found any body in this country who knew any thing about the science. "I have a question," said he, "which I have proposed to several persons here who are reputed the most knowing, and

they cannot solve it." This Englishman was a friend of E. H. Derby, Jr. of Salem, to whom Capt. Prince had some time previously said that he thought Mr. Bowditch "the greatest calculator in America." Mr. Derby and the Englishman being one evening at the theatre, and the latter repeating the remark about his question, "Well," says Mr. Derby, "there is a young man sitting opposite in that box, who, I think, will do it for you. You had better hand it over to him." Accordingly, after the play was over, the problem was brought to the house where Capt. Prince and Mr. Bowditch boarded, by a man named Hughes, who asked him whether he thought he could solve it. "Yes," was his instantaneous reply. The next morning Hughes called and asked him how he got along with the question. "I've done it," says Mr. Bowditch, and I wish you would tell the Englishman that the answer is the logarithm of such a number," naming it. In addition to this, I have heard that the American mathematician said, "Tell your friend that I have got a question which puzzled me once a good while before I could make it out, and I should like to have him try his hand upon it." He gave him the question, and it was handed over to the Englishman; but nothing more was heard of it. For once, he had probably got enough of mathematics.*

* I have heard it said that the name of this Englishman was Nichols, a bookseller, the same who published an edition of Playfair's Geometry in Boston.

Capt. Prince states some facts in relation to the origin of one of Mr. Bowditch's principal works, which will be interesting to all, particularly to all seafaring men, for whose especial benefit I record them. Every thing relating to "The Sailor's Own Book" must be acceptable to them. He states that on the day previous to their sailing on their fourth and last voyage together, Mr. Edmund M. Blunt,* a noted publisher of charts and nautical books, then residing at Newburyport, came to Boston, where the ship lay, on purpose to see Mr. Bowditch. In the course of the conversation between them, which Capt. Prince overheard, Mr. Blunt said, "If you had not corrected the declination, I should have lost the whole of the last edition;" meaning the last edition of John Hamilton Moore's book on Navigation, then in common use on board our vessels. "Why," continued he, "can't you be good enough to look over Hamilton Moore again, more carefully? Take a copy of it with you, and mark whatever you may find; and when you get home, I will give you a new one." "Well," replied Mr. Bowditch, "I will." On the home passage Capt. Prince says that Mr. Bowditch remarked to him, "Now I am going to assist Blunt, and begin with Hamilton Moore." When he had been engaged upon it several days, Capt. Prince

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* Mr. Blunt subsequently removed to the city of New York, where he pursued the same line of business, and became the principal nautical publisher in the United States. He now resides at Sing Sing, and the business is carried on by his sons.

passed by him in the cabin, and said, "Well, sir, you seem to put a great many black marks on Johnny Moore." "Yes," replied Mr. Bowditch, "and well I may, for he deserves it; his book is nothing but a tissue of errors from beginning to end." * After he had been hard at work for some time, Capt Prince said to him, "If I were you, I would sooner make a new book than undertake to mend that old thing." Mr. Bowditch smiled and said, "I find so many errors that I intend to take out the work in my own name." Capt. Prince closed the conversation by adding, "I think you ought to do so, for the work will be new, and the fruit of your own labor,

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* As an illustration of the dangerous blunders of Moore's work, I will mention a fact related to me by my worthy parishioner and friend, John Waters, Esq. of this city. He states that in the beginning of the year 1800, he was returning from Canton in the ship Eliza, and that somewhere this side of the Cape (he thinks off the West India Islands), in taking the sun's declination one day, they turned to Moore's "Table XVII. of The Sun's Declination for the years 1792, 1796, 1800, 1804," to which the stupid fellow had appended the remark, "*each being leap year.*" In consequence of thus erroneously making 1800 a leap year, he gives the declination on the 1st of March 7° 11′, whereas by reference to the Nautical Almanac of that year it will be found to be 7° 33′, making a difference of twenty-three miles. Mr. Waters fortunately had a Nautical Almanac on board, and likewise a copy of Pike's Arithmetic, which explained the reason *why* the year 1800 was *not* leap year. In consequence of this he escaped the dangers to which other vessels in the same latitude were subjected; for he afterwards read in the newspapers of several ships that were wrecked solely by reason of that blunder. It was, indeed, quite time for Hamilton Moore to be laid up, high and dry, on the shelf. Mr. Waters's copy of Moore, the tenth edition, he has shown me, and kindly explained to me the error. I hope I have made it intelligible to other landsmen.

and will be the best work on navigation ever published;" a prediction that was wonderfully fulfilled to the letter.*

Such was the germ of "The New American Practical Navigator," the first edition of which he issued in the year 1800, at the age of twenty-three; a work abounding with the actual results of his own experience, and containing simpler and more expeditious formulas for working the nautical problems.† This work has been of immense service to the nautical and commercial interests of this country. Had Dr. Bowditch never done any thing else, he would still, by this single act, have conferred a lasting obligation upon his native land; and the national legislature might well acknowledge it by erecting a monument to his memory. Just consider the simple

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* The anecdotes relating to the early and the nautical life of Dr. Bowditch have been collected since the Discourse was delivered. It was thought best, however, to insert them in their place, in the body of the Discourse, in order to furnish a continuous narrative. Those relating to the voyages of Capt. Prince were lately taken down from that gentleman's own lips by the Hon. JOHN PICKERING, of this city, who has very kindly favored me with the minutes, from which the present narrative is drawn up. Mr. Pickering, who, for many years, enjoyed the intimacy and friendship of Dr. Bowditch, has been appointed by the American Academy of Arts and Sciences to pronounce the Eulogy before that body in May next. The choice could not have fallen in a better place, and the Academy may then expect a full and adequate exposition of the *scientific* attainments and labors of their distinguished President.

† Before publishing his own work, Mr. Bowditch had prepared for Mr. Blunt two corrected editions of Moore's book, in which he had actually discovered and corrected *eight thousand* errors in the nautical tables, as he himself testifies in the preface to the last stereotype edition.

fact, that every vessel that sails from the ports of the United States, from Eastport to New Orleans, is navigated by the rules and tables of his book. And this has been the case nearly ever since its publication, thirty-eight years ago. I am also informed, that it is extensively used in the British and French navies. Notwithstanding the competition of other English and American works on the subject, "The Practical Navigator" has never been superseded. It has kept pace with the progress of nautical science, and incorporated all its successive discoveries and results; and the last edition, published within the last year, contains new tables and other improvements, which will probably secure its undivided use by our seamen for years to come.*

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* "In preparing this edition," he says, "I have been very much assisted by my son, J. Ingersoll Bowditch, who compiled most of the new tables, and carefully examined those which were taken from other works. By associating him with me, many improvements have been made which otherwise would not have been introduced."

In compiling "The Navigator," he was essentially aided by a series of manuscript journals, preserved in the East India Museum at Salem. It is one of the regulations of the East India Marine Society, to whom that splendid collection belongs, that each member shall keep a journal of every thing remarkable that has occurred, and that he has observed, during his voyage. On his return his journal is examined by a special committee, who extract whatever they think valuable, and copy it into large volumes, kept for that purpose. Dr. Bowditch was accustomed to say, that these volumes contained a mass of nautical information that could be found no where else in the world.

On the 13th of May, 1801, a committee, appointed by the East India Marine Society, reported that "after a full examination of the

The quiet and leisure of the long East India voyages, when the ship was lazily sweeping along under the steady impulse of the trade-winds, afforded him fine opportunities for pursuing his mathematical studies, as well as for indulging his taste for general literature. It

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System of Navigation presented to the Society by one of its members, (Mr. Nathaniel Bowditch) they find that he has corrected many thousand errors existing in the best European works of the kind; especially those in the tables for determining the latitude by two altitudes, in those of difference of latitude and departure, of the sun's right ascension, of amplitudes, and many others necessary to the navigator. Mr. Bowditch has likewise, in many instances, greatly improved the old methods of calculation, and added new ones of his own. That of clearing the apparent distance of the moon, and sun, or stars, from the effect of parallax and refraction, is peculiarly adapted to the use of seamen in general, and is much facilitated (as all other methods are) in the present work, by the introduction of a proportional table into that of the corrections of the moon's altitude. His table nineteenth of corrections to be applied in the lunar calculations, has the merit of being the only one the committee are acquainted with. He has much improved the table of latitudes and longitudes of places, and has added those of a number on the American coast hitherto very inaccurately ascertained. This work therefore is, in the opinion of the committee, highly deserving of the approbation and encouragement of the Society, not only as being the most correct and ample now extant, but as being a genuine American production; and as such they hesitate not to recommend it to the attention of navigators, and of the public at large." This is signed by Jonathan Lambert, Benjamin Carpenter, John Osgood, John Gibaut and Jacob Crowninshield, Committee.

In two voyages across the Atlantic, which I made in 1834, I found myself often poring over the mate's "Practical Navigator," and, omitting the tables and the rules for taking and working lunars, and a few other things of the same sort, I found it quite a readable book, and about as interesting as any on board.

was at these times that he learnt the French* and Spanish languages, without any instructer. Subsequently in life he acquired the German and the Italian. He had previously commenced the study of Latin at the age of seventeen. The first Latin book that he undertook to read was a copy of Euclid's Geometry, which had formerly belonged to the Rev. Dr. Byles,† of Boston, and having been purchased at the sale of his books, was presented to the young mathematician by his brother-in-law, David Martin, of Salem.‡ The following words I copy from the blank leaf in the beginning of the book, "Began to study Latin Jan. 4, 1790." He afterwards read Newton's "Principia," a copy of which book, rare, doubtless, at that time in this country, had

* I have heard it stated, that, on the voyage to Manilla, the ship sprung a leak, and was obliged to put into the Isle of France to refit. Young Bowditch was the only one on board who knew any thing about French, having learnt it from his grammar on the voyage; and this casual knowledge thus proved of essential service to the interests of the owners, as well as to the crew of the ship. He used to say that nothing that he learnt ever came amiss.

† Dr. Bowditch mentioned this fact one day as he was walking up Common (then Nassau) street, with Dr. George Hayward, of this city, and expressed a desire to see the house where the eccentric owner of this book had lived. The book is now in his library.

‡ David Martin married Mary, the eldest sister of Dr. Bowditch. She died in 1808, at the age of forty-two, when her only child, and the only surviving descendant of the male line of his family, with the exception of his own six children, was received into his house and treated as his own child, as appears from this item in his will: "Whereas my niece, Elizabeth Bowditch Martin, has from youth resided in my family and been to me as a daughter," &c. I have so regarded and comprehended her in the Dedication of this Discourse.

come into his possession through the kindness of the learned and reverend Dr. Bentley, of Salem. Dr. Bentley told him that he could not give him the book, as it had been presented to him by a friend, but said he would loan it to him, and that he might keep it till it was called for. He did keep it; it was never called for; it is still among his books; and Dr. Bowditch has more than once taken it down from the shelf and showed it to me.*

What he once learned he ever afterwards remembered, and it may be mentioned as an instance of the singular tenacity of his memory, that, on lately reading the splendid "History of the Reign of Ferdinand and Isabella,"† the last book he read through, and one for

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* This is Dr. Bowditch's own account of the mode in which he came into possession of this book, which his own family, as well as myself, recollect to have heard often from his lips; and, moreover, the fact is so recorded, by his direction, in the catalogue of his library. But a very respectable merchant of Salem informs me that Dr. Bentley gave him the book, and he loaned it, in the manner above-mentioned, to Mr. Bowditch. Strict regard for accuracy leads me to append this statement.

† By William H. Prescott, Esq. This noble contribution to the youthful literature of our country is, at the same time, one of the most remarkable instances, in literary history, of the triumph of genius over difficulties and discouragements. It seems almost incredible, that so extensive a work, demanding the perusal of so many books, and the consultation of so many authorities, could have been composed without the full and free use of the eyes. And yet it is a fact known to me, that the author, although he wrote the book through with his own hand, never saw the words while he was writing them. His work is a noble evidence of his perseverance as well as of his learning and good taste, and reflects honor upon himself as well as upon his country.

which he expressed the highest admiration, he remarked that many of the incidents in it were quite familiar to him, he having once read the great work of Mariana on the History of Spain, in the original language, in the course of one of his voyages. The French mathematician, Lacroix, acknowledged to a young American that he was indebted to Mr. Bowditch for communicating many errors in his works, which he had discovered in these same long India voyages.

In the year 1806, Mr. Bowditch published his accurate and beautiful chart of the harbors of Salem, Beverly, Marblehead, and Manchester, the survey of which had occupied him during the summers of the three preceding years. So minutely accurate was this chart, that the old pilots said he had found out all their professional secrets, and had put on paper points and bearings which they thought were known only to themselves. They began to fear that their services would no longer be needed, and that their occupation and their bread were gone.*

The extraordinary mathematical attainments of the young sailor soon became known, and secured to him

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* Dr. Bowditch took great delight in every accurate scientific work of this sort; and I recollect his speaking, in terms of the highest admiration, of the survey of George's Shoal, recently made by the accomplished Lieut. Wilkes. He described it to me one evening very minutely, told me how it had been done, and spoke in the warmest manner of the science and skill which it evinced.

the notice of our most distinguished men,—among others that of the late Chief Justice Parsons, himself an eminent mathematician,—and likewise the deserved, yet wholly unexpected, honors of the first literary institution in the land. In the summer of 1802, at the age of twenty-nine, his ship lying wind-bound in this port, he went out to Cambridge to attend the exercises of Commencement Day; and whilst standing in one of the aisles of the church, as the President was announcing the honorary degrees conferred that day, his attention was aroused by hearing his own name called out as a Master of Arts. The annunciation came upon him like a peal of thunder; it took him wholly by surprise. He has been heard to say that that was the proudest day of his life; and that of all the distinctions which he subsequently received from numerous learned and scientific bodies, at home and abroad,* (among which may be mentioned his election as a Fellow of the Royal Society of London, an honor to which few Americans have ever attained), there was not one which afforded him half the pleasure, or which he prized half so highly, as this degree from Harvard. It was, indeed,

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* Dr. Bowditch was President of the American Academy of Arts and Sciences from 1829 to the time of his death. He was also a Fellow of the Royal Societies of Edinburgh and Dublin; of the Astronomical Society of London; of the American Philosophical Society held at Philadelphia; of the Connecticut Academy of Arts and Sciences; of the Literary and Philosophical Society of New York; Corresponding Member of the Royal Societies at Berlin, Palermo, &c. &c. &c.

his first honor, his earliest distinction; it was not only kindly meant, but timely done; and it no doubt stimulated him to perseverance in his scientific pursuits, as well as created that interest which he always took in the prosperity of that institution.

On quitting the sea, in 1804, he became the President of a Marine Insurance Company in Salem,* the duties of which he continued to discharge till the year 1823, when, on the establishment of "The Massachusetts Hospital Life Insurance Company," in this place, he was elected to the office, being considered the person best qualified for this highly responsible station, from his habits of accurate calculation and rigid method,

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* While residing at Salem he was frequently solicited to accept posts of honor and emolument in various literary institutions, in different parts of the country. Though his salary as President of the Insurance Company was small, being only twelve hundred dollars, yet the larger offers from a distance could not induce him to leave his blessed New England home. Thus in 1806, he was chosen to fill the Hollis Professorship of Mathematics at Harvard University, vacated by the promotion of Professor Webber to the Presidency. In 1818, he received a letter from Mr. Jefferson, requesting him to accept the Professorship of Mathematics in the new University at Charlottesville, in Virginia. Mr. Jefferson says in his letter (which is now before me), "We are satisfied we can get from no country a Professor of higher qualifications than yourself for our mathematical department." And in 1820, on the death of Mr. Ellicott, Professor of Mathematics at the United States' Military Academy at West Point, he received a letter from Mr. Calhoun, then Secretary of War, desiring him to permit his name to be presented to the President to fill the vacant chair. Mr. Calhoun says in that letter (which also I have now before me), "I am anxious to avail myself of the first mathematical talents and acquirements to fill the vacancy."

and his inflexible integrity. Immediately on accepting the office he removed to this city at the age of fifty, and has here spent the last fifteen years of his life.

It scarcely needs to be stated that he discharged the duties of his high trust with the greatest fidelity and skill, and to the entire satisfaction of the Company. The capital was five hundred thousand dollars. But, at his suggestion, the Company applied to the Legislature for additional power to hold in trust and loan out the property of individuals. This power was granted; and upwards of five millions of dollars, nine tenths of which belong to females and orphans, have been thus received and invested. This institution has, in this way, been of incalculable service, it being in fact nothing more nor less than a Savings Bank on a large scale. "Providence"—I use his own language, in his parting letter to the Directors—"has seen fit to bless our efforts to make it an institution deserving of public regard." It deserves to be mentioned, that Dr. Bowditch was never willing to receive and tie up any investment, without himself seeing or hearing in writing from the person in whose behalf the investment was to be made, and ascertaining that it was done with his or her full and free consent, and that the individual perfectly understood the mode and conditions of the investment, before it was put into the *dead hand* of the institution.

I may here also notice the fact, perhaps not generally known, that during the late unexampled commercial embarrassments and financial difficulties, when almost

all our moneyed institutions have sustained heavy losses from the bankruptcies of their debtors, "and," to use his own words in the same letter, "by having dealt with corporations, whose affairs have been managed with a recklessness which has never before been witnessed in this country," yet so carefully and skilfully have the affairs of The Life Office been managed, that, although the largest moneyed institution in New England, having a capital equal to ten common banks, and with a loan out of six millions, its loss has not been greater than that sustained by some of the smallest banks.

It was a hard struggle for Dr. Bowditch to break away from the pleasant scenes and associations of his native place. There were his earliest friends, and there his strongest ties. But he felt that he owed it to his family to make the sacrifice of personal attachments and preferences; and for some time he and his amiable consort fondly cherished the hope, of returning and spending their last days in the City of Peace.* Soon after his coming to town he joined this religious society, and here continued to worship till the time of his death.

It was in the year 1800 that he married, for his second wife, his cousin, Mary Ingersoll, a lady of singular sweetness of disposition and cheerful piety, and who, by her entire sympathy with him in all his studies and

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* On his leaving Salem, a public dinner was given him by his fellow-citizens, as a testimony of their respect. No man ever left that place more regretted.

pursuits, lightened and cheered his labors, and by relieving him from all domestic cares, enabled him to go on, with undivided mind and undistracted attention, in the execution of the great work, on which his fame, as a man of science, rests. He has been heard to say, that he never should have accomplished the task, and published the book in its present extended form, had he not been stimulated and encouraged by her. When the serious question was under consideration as to the expediency of his publishing it at his own cost, at the estimated expense of ten thousand dollars (which it actually exceeded), with the noble spirit of her sex, she conjured and urged him to go on and do it, saying that she would find the means, and gladly make any sacrifice and submit to any self-denial that might be involved in it. In grateful acknowledgment of her sympathy and aid, he proposed, in the concluding volume, to dedicate the work to her memory—a design than which nothing could be more beautiful or touching. Let it still be fulfilled.*

It is hardly necessary for me to say that this was a Translation and Commentary on the great work of the French astronomer, La Place, entitled "*Mécanique*

* This noble-minded and excellent woman, whose unfailing cheerfulness and vivacity rendered her admirably suited to be the wife of such a man, was the daughter of Jonathan and Mary Hodges Ingersoll. She was born December 4, 1781, and died in Boston on the seventeenth of April, 1834. Her father is still living in Windsor, Vt., at the advanced age of eighty-seven years, and his only surviving child, George H., resides at Charlestown, N. H.

Céleste," in which that illustrious man undertakes to explain the whole mechanism of our solar system, to account, on mathematical principles, for all its phenomena, and to reduce all the anomalies in the apparent motions and figures of the planetary bodies, to certain definite laws.* It is a work of great genius and immense depth, and exceedingly difficult to be comprehended. This arises not merely from the intrinsic difficulty of the subject, and the medium of proof employed being the higher branches of the mathematics,—but chiefly from the circumstance that the author, taking it for granted that the subject would be as plain and easy to others as

* La Place himself, in his Preface, states the object of his work as follows. "Towards the end of the seventeenth century, Newton published his discovery of universal gravitation. Mathematicians have, since that epoch, succeeded in reducing to this great law of nature all the known phenomena of the system of the world, and have thus given to the theories of the heavenly bodies and to astronomical tables, an unexpected degree of precision. My object is to present a connected view of these theories, which are now scattered in a great number of works. The whole of the results of gravitation, upon the equilibrium and motions of the fluid and solid bodies, which compose the solar system, and the similar systems, existing in the immensity of space, constitute the object of *Celestial Mechanics*, or the application of the principles of mechanics to the motions and figures of the heavenly bodies. Astronomy, considered in the most general manner, is a great problem of mechanics, in which the elements of the motions are the arbitrary constant quantities. The solution of this problem depends, at the same time, upon the accuracy of the observations, and upon the perfection of the analysis. It is very important to reject every empyrical process, and to complete the analysis, so that it shall not be necessary to derive from observations any but indispensable data. The intention of this work is to obtain, as much as may be in my power, this interesting result."

to himself, very often omits the intermediate steps and connecting links in his demonstrations.* He jumps over the interval, and grasps the conclusion as by intuition. Dr. Bowditch used to say, "I never come across one of La Place's '*Thus it plainly appears*,' without feeling sure that I have got hours of hard study before me to fill up the chasm, and find out and show *how* it plainly appears." It was in the year 1815, at Salem, that he began this herculean task, and finished it in two years, in 1817. The Commentary kept pace with the Translation; but whilst the publication was in hand, his alterations and additions were so numerous that it might almost be considered a new draft of the work.

Let it not be said, in disparagement of the labors of Dr. Bowditch, that this was not an original work, but merely a translation. Suppose that it had been so.

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* Dr. Bowditch himself says, in his Introduction to the first volume, "The object of the author, in composing this work, as stated by him in his Preface, was to reduce all the known phenomena of the system of the world to the law of gravity, by strict mathematical principles; and to complete the investigations of the motions of the planets, satellites, and comets, begun by Newton in his Principia. This he has accomplished, in a manner deserving the highest praise, for its symmetry and completeness; but from the abridged manner, in which the analytical calculations have been made, it has been found difficult to be understood by many persons, who have a strong and decided taste for mathematical studies, on account of the time and labor required, to insert the intermediate steps of the demonstrations, necessary to enable them easily to follow the author in his reasoning. To remedy, in some measure, this defect, has been the chief object of the translator in the Notes."

What then? Was it not still a benefaction to this country and to Great Britain, thus to bring it within the reach and compass of the American and English mind?* It is truly said by an old writer, "So well is he worthy of perpetual fame that bringeth a good work to light, as is he that first did make it, and ought always to

* The only attempts that have been made in England to grapple with the great work of La Place are, 1. "An Elementary Treatise upon Analytical Mechanics, being the First Book of the Mécanique Céleste of La Place; translated and elucidated with Explanatory Notes, by the Rev. John Toplis, B. D., London. 1814." 8vo.—2. "Elementary Illustrations of the Celestial Mechanics of La Place, [by Thomas Young, M. D.] London. 1821." 8vo.—3. "A Treatise on Celestial Mechanics, by P. S. La Place; translated from the French, and elucidated with Explanatory Notes, by Rev. Henry H. Harte, Fellow of Trinity College, Dublin. Part First, Book First, 1822. Book Second, 1827. Dublin." 4to.

It is *not* surprising that two out of the three translators of parts of La Place's work in England are *clergymen*. The clergy in England, as well as on the continent, and in this country, have ever been not only among the warmest patrons, but the foremost and most successful cultivators, of all branches of science and letters. Passing over the names of continental scholars, we have, in science, the names of Flamsteed, astronomer royal, Barrow and Whiston, both professors of mathematics at Cambridge, Bp. Sprat, one of the founders of the Royal Society and its first historian, Thomas Birch, the author of the more extended history of the same Society, Joseph Priestley, Richard Kirwan, Dr. Pearson, lately deceased, and among the living, Whewell, Buckland, Kirby, Sedgwick, Conybeare, Lardner, Baden Powell, Prof. of Geometry at Oxford, James Cumming, Prof. of Chemistry at Cambridge, &c. &c. The published Translations and Reports of "The British Association for the Advancement of Science," show that some of the most prominent and active men at its sessions are clergymen. Then, in classical literature, we have the two great names of Richard Bentley and Gilbert Wakefield, and in history, Robertson.

In this country, while the clergy have done their full part in the ad-

be reckoned the second father thereof."* But the fact is, it is more than half an original commentary and exposition, simplifying and elucidating what was before complex and obscure, supplying omissions and deficiencies, fortifying the positions with new proofs and

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vancement of science and letters, the history of the country has been almost exclusively written by them. Witness the names of Cotton Mather, Thomas Prince, Gordon, Eliot, Holmes, Belknap, Smith of New Jersey, Trumbull, Freeman, Sparks, George Bancroft. In philosophy, the great name of Jonathan Edwards stands at the head; and glancing over the names of Witherspoon, Samuel Smith, and President Dwight, we have, among the living, Dr. Miller and President Wayland. In mechanical philosophy, the late Dr. Prince, of Salem, had no equal. In general literature and criticism, the name of Edward Everett is in itself a host; Dr. Channing, as an essay-writer, has no rival; and in the department of theology, let me point to the recent contributions of Norton and Palfrey. The editors of our principal Reviews, the North American, the New York Review, the Christian Examiner, have been and still are clergymen; e. g. E. Everett, Sparks, Prof. Palfrey, Dr. Hawkes, Dr. Walker, F. W. P. Greenwood; and the best and most popular writers in them, including the names just mentioned, are of the clerical profession, e. g. Andrews Norton, Orville Dewey, W. B. O. Peabody, H. Ware jr., George Ripley, and many others, whom I have not space to specify. It will be seen that I only glance at this subject; it deserves to be followed up. It has been too much the fashion to represent the clergy as a body apart by themselves, taking no interest in any thing but their professional studies, and doing nothing to promote the progress of general knowledge. Nothing can be more untrue and unjust than this charge. I believe it will be found that the clergy, as a body, in this country, have done more for general literature, history, philosophy, and science, than all other professions and occupations, put together. See 2 Corinthians xii. 11. "Every man," says Lord Bacon, "is a debtor to his profession." I want to pay my debt.

* John Bale's Conclusion to John Leland's "Laborious Journey and Search for England's Antiquities."

giving additional weight and efficiency to the old ones; and, above all, recording the subsequent discoveries, and bringing down the science to the present time.* I have heard it said that La Place, to whom Dr. Bowditch sent a list of errors, (which however he never had the grace to acknowledge in any way),† once remarked, "I am sure that Mr. Bowditch comprehends my work, for he has not only detected my errors, but has also shown me how I came to fall into them."

The manner in which he published this work affords a striking illustration of the spirit of independence, which was a prominent feature in his character. He had been frequently solicited and urged by his numerous

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* It is highly honorable to the sex, that the best, may I not say, the only *Exposition* of La Place's work that has appeared in England, is from the pen of a female, the accomplished MARY SOMERVILLE, wife of Dr. Somerville, of Chelsea Hospital; a lady, who to profound acquisitions in science, and a practical skill in several of the elegant arts, adds the faithful discharge of all household duties. On visiting her house in 1833, in company with a son of Dr. Bowditch, I remember observing that the walls of the drawing-rooms were hung round with the beautiful productions of her own pencil.—The Edinburgh Review said of her work, entitled "The Mechanism of the Heavens," on its first appearance, in 1821, "This unquestionably is one of the most remarkable works that female intellect ever produced, in any age or country; and, with respect to the present day, we hazard little in saying that Mrs. Somerville is the only individual of her sex in the world who could have written it."

† This, possibly, may have been an inadvertence, or the letter of acknowledgment may have miscarried on the way. It is certain that his widow received the son of the American mathematician with great kindness and consideration, when, in the year 1833, he went to Paris to pursue his medical studies, carrying out with him the second volume of

wealthy friends, and by eminent scientific men, and formally requested by the American Academy of Arts and Sciences, to permit them to print it at their expense, for the honor of the country, and for the cause of science. He was well aware, however, that there was not sufficient taste in the community for such studies to justify an enterprise which would involve a great outlay, and, as he thought, would bring him under pecuniary obligations to others. I recollect conversing with him once on this subject, when he said to me, in his usual ardent way, "Sir, I did not choose to give an opportunity to such a man (mentioning his name) to point up to his book-case and say, 'I patronized Mr. Bowditch by subscribing for his expensive work,'—not a word of which he could understand. No. I preferred to wait till I could afford to publish it at my own expense. That time at last arrived; and if, instead of setting up my coach, as I might have done, I

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his father's work. He was immediately invited to a splendid *soirée*, and on entering the brilliant saloon, filled with the *savans* of France, he was unexpectedly greeted by seeing on the centre table,—the only thing on it,—the identical volume which he had brought over with him—a delicate compliment, which none but a graceful French woman would have thought of paying. Madame La Place subsequently sent to Dr. Bowditch the noble bust of her husband, which now stands on the secretary in the Library. This bust is ultimately to go to Harvard College, according to the following provision in his Will.

"*Item.* The bust of La Place, presented to me by his widow, and which was brought to me from Europe by my son Henry, I give to my said son for life, and at his death to said President and Fellows of Harvard College."

see fit to spend my money in this way, who has any right to complain? My children I know will not."

The first volume of the work was published in the year 1829,* the second in 1832, and the third in 1834, each volume containing about a thousand quarto pages.

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* The London Quarterly Review, three years after the appearance of Dr. Bowditch's first volume, expressed the following high opinion of its merits. "The idea of undertaking a translation of the whole 'Mécanique Céleste,' accompanied, throughout with a copious running commentary, is one which savors, at first sight, of the *gigantesque*, and is certainly one which, from what we have hitherto had reason to conceive of the popularity and diffusion of mathematical knowledge on the opposite shores of the Atlantic, we should never have expected to have found originated—or, at least, carried into execution, in that quarter. The first volume only has as yet reached us; and when we consider the great difficulty of printing works of this nature, to say nothing of the heavy and probably unremunerated expense, we are not surprised at the delay of the second. Meanwhile the part actually completed (which contains the first two books of La Place's work) is, with few and slight exceptions, just what we could have wished to see—an exact and careful translation into very good English—exceedingly well printed, and accompanied with notes appended to each page, which leave no step in the text of moment unsupplied, and hardly any material difficulty either of conception or reasoning unelucidated. To the student of 'Celestial Mechanism' such a work must be invaluable, and we sincerely hope that the success of this volume, which seems thrown out to try the feeling of the public, both American and British, will be such as to induce the speedy appearance of the sequel. Should this unfortunately not be the case, we shall deeply lament that the liberal offer of the American Academy of Arts and Sciences, to print the whole at their expense, was not accepted. Be that as it may, it is impossible to regard the appearance of such a work, even in its present incomplete state, as otherwise than highly creditable to American science, and as the harbinger of future achievements in the loftiest fields of intellectual prowess." *Vol. XLVIII. p.* 558.

The fourth and last volume was nearly completed at the time of his decease. He persevered to the last in his labors upon it, preparing the copy and reading the proof-sheets in the intervals when he was free from pain. The last time I saw him, a few days previous to his death, a proof-sheet was lying on his table, which he said he hoped to be able to read over and correct.*

The publication of the book proved, as he anticipated, and as I have already mentioned, a very expensive undertaking, it being one of the largest works and most difficult of execution ever printed in this country, and at the same time one of the most beautiful specimens of typography. A young friend of mine,† a member of this church, of singular purity and worth, who worked as a compositor on one of the volumes, lost his life, as I believe, by his unremitting application to this very trying and perplexing piece of mechanical art. His widow, who is now present and hears me, will bear witness that she was kindly visited in her bereavement by Dr. Bowditch, and generously remembered by him.

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* The precious original manuscript will be hereafter preserved in the library at Cambridge, according to his direction in his Will. "*Item.* Having received from the President and Fellows of Harvard College my first public literary honor, and having been for many years intimately connected with its administration, I give to that institution my manuscript copy of 'The Translation of La Place's Mécanique Céleste.'"

† John W. Macnair, of Harrisburg, Pennsylvania, died in this city, February 27, 1833, aged 33. His name is appended as compositor to the second volume. The three first volumes of the work were printed by Isaac R. Butts; the fourth by the Boston Stereotype Company.

Though the work, on its appearance, met with more purchasers than the author ever expected, still the cost was a heavy draught on his income, and an encroachment on his little property. Yet it was cheerfully paid; and besides that, he gladly devoted his time, his talents, and may I not add, his health and his life, to the cause of science and the honor of his native land. That work is his monument.

SI MONUMENTUM QUÆRIS, ASPICE LIBRUM.*

He needs no other monument; and at the same time it is the most precious and honorable legacy that he could bequeath to his children.†

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* I have ventured to alter a little and apply to Dr. Bowditch, the well-known epitaph on Sir Christopher Wren, beneath the dome of St. Paul's Cathedral, London :—" SI MONUMENTUM QUÆRIS, CIRCUMSPICE."

† Among the numerous services which Dr. Bowditch rendered to the cause of good learning and the diffusion of useful knowledge, after he came to Boston, was the deep interest and the active part which he took in the Boston Athenæum. When, in 1826, the Perkins family, in that liberal spirit which has ever characterized them, gave to the Athenæum sixteen thousand dollars, on condition that an equal sum should be raised from other sources, Dr. Bowditch exerted himself to the utmost to accomplish the object. Many of the best friends of the institution thought the enterprise a hopeless one, and were indisposed even to make an attempt to raise the amount. But Dr. Bowditch said, " It is a good thing, let us try it; if we fail, we fail in a good cause." He called personally on many individuals to solicit subscriptions, and chiefly in consequence of his exertions, the additional sum of twenty-seven thousand dollars was raised.

The permitting the books to be taken out of the library was another measure proposed and effected by him. Strenuous opposition was made

In delineating the character of Dr. Bowditch, it deserves to be mentioned, first of all, that he was eminently a self-taught and self-made man. He was the instructer of his own mind, and the builder up of his own fame and fortunes. Whatever knowledge he possessed,—and we have seen that it was very great,—was

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to it; but he believed and said that the circulation of the books would make the library ten times more useful, and he persevered till he accomplished the measure. It was always a favorite object with Dr. Bowditch to render books easily accessible to those who wanted them, and could make a good use of them. He doubtless remembered the difficulties under which he labored in early life for want of books, and was disposed to obtain for others the advantages which had been extended to himself. He was Trustee of the Athenæum from Jan. 2, 1826, to Dec. 4, 1833.

Immediately after his election as Trustee, Dr. Bowditch, perceiving the paucity and poverty of the scientific department of the library, which might all be put into one small compartment,—"dum tota domus rhedâ componitur unâ,"—declared that "it was too bad, and a disgrace to the institution and to Boston." He accordingly set about supplying the deficiency, by collecting subscriptions for this express purpose. Col. T. H. Perkins, one of nature's noblemen, whose monument is "The Institution for the Blind," gave $500, his brother James the same amount, Dr. Bowditch himself $250, and other gentlemen $100, among whom should be mentioned the subscribers to "The Scientific Library." With this sum were purchased the Transactions of the Royal Societies of London, Dublin and Edinburgh, of the French Academies and Institute, of the Academies of Berlin, Göttingen, St. Petersburg, Turin, Lisbon, Madrid, Stockholm, and Copenhagen; forming, as Dr. Bowditch once told the librarian, "the most extensive and complete collection of philosophical and scientific works on this continent."

Dr. Bowditch took a deep and active interest in the "Boston Mechanics' Institution," which was established in 1826, and of which he was elected the first President, January 12, 1827. In the winter of 1828,

of his own acquiring, the fruit of his solitary studies, with but little, if any, assistance from abroad. Whatever eminence he reached, in science or in life, was the product of his untiring application and unremitting toil. From his youth up, he was a pattern of industry, enterprise and perseverance, suffering no difficulties to discourage, no disappointments to dishearten him.

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more than a thousand dollars were subscribed for the purchase of apparatus, chiefly through his influence with his friends, and he headed the list with the sum of one hundred dollars. It is an important fact, that the mode of communicating instruction by popular lectures, now universal, was first introduced in this community by the Boston Mechanics' Institution, and chiefly by the exertions of the mechanics of this city. Dr. Bowditch resigned the Presidency April 27, 1829, and on May 14, he was elected first honorary member of the institution.

Dr. Bowditch was also an honorary member of the Massachusetts Charitable Mechanic Association, having been elected on the 5th of February, 1828. On the 3d of April last, a Eulogy on their departed associate was pronounced before that body by the author of this Discourse, on which day the flags of all the shipping in the port were hauled to half-mast by direction of the Boston Marine Society, of which he was likewise a regular member, having been admitted on the 2d of March, 1830. His sense of the honor thus conferred on him by these elections, and his affectionate regard for these Societies, will be best seen by the following extract from his Will:—

"And, in respect to Boston, the home of my adoption, where, as a stranger, I met with welcome, and where I have ever continued to receive constantly increasing proofs of kindness and regard, I should have been most happy to have made a similar acknowledgment of my gratitude by legacies to those literary and charitable institutions for which that city has always been so preëminently distinguished. And, in particular, it would have given me pleasure to have noticed the Boston Marine Society, of which I am a member, and the Boston Charitable

Within a few years a very interesting work has been published in England, under the patronage of the Society for the Diffusion of Useful Knowledge, entitled "The Pursuit of Knowledge under Difficulties." Dr. Bowditch deserves a place in that work, if any man does, and had he died before its appearance, he would unquestionably, like our countryman Franklin,* have occupied a prominent chapter. We sometimes hear persons say, how much they would do if they only had the means and the opportunities. But almost any body can work with means and opportunities. It is the privilege and characteristic of genius to work without means, to be great in spite of them, to accomplish its object in the face of obstacles and difficulties.

Mechanic Association, which has placed my name on its small and select list of honorary members; since these institutions are of a similar character to the Marine Societies in Salem, and have, for one of their important objects, that of affording valuable aid to the destitute families of deceased members. But the pecuniary circumstances of my estate do not permit it."

* It would be interesting and instructive to draw a parallel and contrast between the lives, characters and scientific attainments of Franklin and Bowditch, unquestionably the two greatest proficients in science that America has produced. Both rose from obscure situations in humble life, and from the straits of poverty. Both left school at the age of ten years, to assist their fathers in their shops. Both had an early and passionate love of reading, and the vigils of both often "prevented the morning." Both had the same habits of industry, perseverance and temperance. The contrast between their characters would be still more striking than the resemblance. But I cannot go on now. I may resume this topic hereafter.

It was my good fortune, some years since, in one of those familiar interviews with him in his own house with which I was favored,—and which those who have once enjoyed them will never forget,—to hear him narrate, in detail, a history of his early life. From that day to this I have never ceased to regret that, on my return home, I did not instantly put it down upon paper, for the refreshment of my own memory, and for the benefit of others. At this distance of time, I can recollect but a few, the most striking, particulars; the rest have faded away and are lost. I remember, however, very distinctly, his relating the circumstance which led him to take an interest in the higher branches of mathematical science. After mentioning his going to sea at an early age, he told me that, in the intervals of his voyages, he endeavored, by himself, to pick up a little knowledge of navigation, and, as preparatory to that, to acquire the elements of geometry. It so happened, that an elder brother of his, who likewise followed the sea, was then attending an evening school for the same purpose. On returning home one evening, he informed him that the master had got a new way of doing sums and working questions; for, instead of the numerical figures commonly used in arithmetic, he employed the letters of the alphabet. This novelty excited the curiosity of the youthful navigator, and he questioned his brother very closely about the matter; who, however, did not seem to understand much about the process, and could not tell how the thing was done. But the

master, he said, had a book, which told all about it. This served to inflame his curiosity; and he asked his brother whether he could not borrow the book of the master and bring it home, so that he might get a sight at it. (It should be remembered that, at this time, mathematical books of all sorts were scarce in this country. In the present multitude of elementary works on the subject, we can hardly conceive of the dearth that then prevailed). The book was obtained. It was the first glance that he had ever had at algebra. "And that night," said he, "I did not close my eyes." He read it, and read it again, and mastered its contents, and copied it out from beginning to end. Subsequently he got hold of a volume of the Philosophical Transactions of the Royal Society of London, which he treated pretty much in the same summary way, making a very full and minute abstract of all the mathematical papers contained in it; and this course he pursued with the whole of that voluminous work. He was too poor to purchase books, and this was the only mode of getting at their results, and having them constantly at hand for consultation. These manuscripts, written in his small, neat hand, and filling several folio volumes, are now in his library, and, in my opinion, are the most curious and precious part of that large and valuable collection.

I have more than once heard him speak in the most grateful manner,—and he repeated it the last time that I saw him,—of the kindness of those friends in Salem who aided him in his early studies by the loan

of their books. He named particularly the late eminent Dr. Prince,* the pastor of the First Church, who gave him free access to his library; and he likewise mentioned a society of gentlemen who had a private collection of their own. The manner in which these latter books came into the country, is so remarkable, that I am happy to be able to relate it in Dr. Bowditch's own words, as contained in his last Will. The extract is as follows:—

"*Item.* It is well known, that the valuable scientific library of the celebrated Dr. Richard Kirwan was, during the revolutionary war, captured in the British Channel, on its way to Ireland, by a Beverly privateer; and that, by the liberal and enlightened views of the owners of the vessel, the library thus captured was sold

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* It is gratifying to find the clergy, the scientific Dr. Prince, and the learned Dr. Bentley, the earliest encouragers of the precocious powers of the American mathematician. It has always been so. The Christian clergy have, from the beginning down to this day, not only been themselves the most learned men of their times, but have always been the fosterers of early talent, and the patrons of unfriended genius. They are the natural, the appropriate guardians of our seminaries of learning.

Why is it that the clergy have, of late years, been excluded from their places in the Corporation of Harvard College? But a short time since, from 1818 to 1828, they had *three* members there out of *seven*. They now have but *one*. Has it been proved that they are incompetent, in any respect, to act as its guardians, or that they can exert a less influence in favor of that institution with the community? The Corporation now consists of four members of the legal profession, two merchants, and one clergyman. Is this distribution equal? Is it right? Is it expedient?

at a very low rate; and in this manner was laid the foundation upon which have since been successively established The Philosophical Library, so called, and the present Salem Athenæum. Thus, in early life, I found near me a better collection of philosophical and scientific works than could be found in any other part of the United States nearer than Philadelphia. And by the kindness of its proprietors I was permitted freely to take books from that library and to consult and study them at pleasure. This inestimable advantage has made me deeply a debtor to the Salem Athenæum; and I do therefore give to that Institution the sum of one thousand dollars, the income thereof to be for ever applied to the promotion of its objects and the extension of its usefulness."

I have two remarks to make on this singularly interesting extract. In the first place, it seems to me there was something like a special providence in the capture of that library, consisting of such a peculiar class of books, by a Beverly vessel, and its being brought into the port of Salem rather than any other port in the United States. Here was apparent design, the fitting of means to ends. The books came exactly to the place where they were wanted; to the only place, probably, in the country where they were wanted. They came, too, at the right time, just in season to be used by the person who could make the best possible use of them, and to whom they were, above all computation, valuable and necessary. If this be not an act of Providence, I hardly know what is.

The good Dr. Kirwan* mourned, no doubt, over the loss of his books, and not least of all that they had become so utterly misplaced and useless. He probably thought that the vessel which contained them might as well have been wrecked on the coast of Africa, and the leaves of his philosophical works employed to adorn the heads and persons of the Caffres and Hottentots, a use to which we are told "The Practical Navigator" was once put by the inhabitants of one of the South Sea islands.† But had the learned philosopher known that his lost library had supplied the intellectual food for the growth of one of the greatest scientific men of his age, he might, perhaps, have become reconciled to his loss.

My other remark is, that this item in his Will is an indication of a very prominent feature in his character, namely, his grateful and generous spirit. Dr. Bowditch never forgot a favor; length of time did not obliterate it from his memory. The kindness shown him when a

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* The reverend Richard Kirwan was a native of Ireland, and was distinguished for his attainments in mineralogy and chemistry. His principal work was his Elements of Mineralogy, published in 1784. He died in 1812.

† "It happened that among the few articles saved from the ship, [the whale-ship Mentor, of New Bedford] was a copy of 'Bowditch's Navigator;' an article of as little use as we can conceive any one thing to have been at that place. But the ingenuity of the females, who also have their passion for ornaments, tore out the leaves of the book, and making them into little rolls of the size of one's finger, wore them in their ears, instead of the tufts of grass which they usually employed to give additional attractions to their native charms." *American Quarterly Review of Holden's Narrative, Vol. XX. p.* 25.

poor boy he remembers and repays by a liberal legacy. The Salem Marine Society, a mutual charitable institution, which had aided his father in his straits by the small annual stipend of fifteen dollars, he repays, and wipes off the obligation, though not his sense of the benefit, by a similar bequest of a thousand dollars.* And the East India Marine Society, whose peculiar and splendid collection of curiosities is so well known, receives a legacy of the same amount.† And let it be

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* Dr. Bowditch remembered, too, the load of wood which annually, when the wintry weather came on, was dropped, without a word being spoken, at his sister's door. He never doubted that it came from the Salem Marine Society. Accordingly, he says in his Will,—

"*Item.* Whereas several of my relatives have heretofore been members of that excellent institution, The Marine Society, at Salem, some of whom have received the benefit of its charity fund, under circumstances entitling it to my grateful remembrance, I do now give to that institution the sum of one thousand dollars, the income thereof to be for ever applied in aid of its charitable objects and purposes."

† Dr. Bowditch was elected President of the East India Marine Society in 1820, and held that office until he left Salem, three years afterwards. He entered upon his duties with his usual zeal and energy, and it was by his indefatigable exertions that the Society, with its splendid Museum, was renovated and restored. It had been suffered, in the course of time, by the death and removal of the members, to fall into decay. But Dr. Bowditch revived it, by going round personally and calling upon all the young men that were eligible, and persuading them to join it. In this way, in the course of two years, thirty or forty active and efficient members were added. It was under his Presidency, too, and by his encouragement, that the valuable catalogue of the Museum was made by Dr. Bass, now Librarian of the Boston Athenæum. He remembers that Society in his Will as follows:—

"*Item.* Whereas the Salem East India Marine Society, of which I was formerly President, and in which I have always felt a deep interest,

remembered that these were not the donations of a rich man. He was far from being one. These three legacies constituted one tenth part of his whole personal property. Others sometimes give to such institutions from their abundance—he from his comparative penury. Let the deed be an example and an incitement to our wealthy men!

Had his means permitted, he would gladly have remembered, in the same way, institutions of a similar character in this place. I know that his heart overflowed with affection and gratitude for the kindness which he had received in this city of his adoption. He told me, in his last illness, that he had been very kindly treated here—far above his deserts. "My services," he added, "have been very amply remunerated;" and I know that the motive which induced him to select the objects of his bounty in his native place rather than in this town, was the well-known fact that his legacies would go farther and do much more good there than here. He remembered, too, that there were fewer persons there than here who could afford to make bequests of this sort; and he likewise felt well assured

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as an institution highly creditable to the Commonwealth, possessing a museum of a very rare and peculiar character, collected from distant countries, and affording a proof alike of the enterprise, taste, and liberality of such of the citizens of Salem as have followed a sea-faring life, I do now give to that institution the sum of one thousand dollars, the income thereof to be for ever applied to the promotion of the objects for which it was established."

that our rich men were as willing as they were able to take care of our literary and charitable institutions.

Dr. Bowditch combined, in a very remarkable degree, qualities and habits of mind which are usually considered incompatible and hostile. He was a contemplative, recluse student, and, at the same time, an active, public man. He lived habitually among the stars, and yet, I doubt not, he seemed to many never to raise his eyes from the earth. He was a profound philosopher, and, at the same time, a shrewd, practical man, and one of the most skilful of financiers. Judging from his published works, you would suppose that he could have no taste nor time for business or the world; and judging from the large concerns which he managed, and the vast funds of which he had the supervision,—involving the most complex calculations and the most minute details,—you would say that he could have no taste nor time for study. His example is a conclusive proof and striking illustration of the fact, that there is no inherent, essential, necessary incompatibility between speculation and practice—that there need be no divorce between philosophy and business. The man most deeply engaged in affairs need not be cut off from the higher pursuits of intellectual culture; and the scholar need not be incapacitated by his studies from understanding and engaging in the practical details of common life. In fact, they should be blended in order to make up the full, complete man. Contemplation should be always united with action. This was the doctrine and

the practice of the great father of inductive philosophy, as well as of this his illustrious pupil. "That," says Lord Bacon, "will indeed dignify and exalt knowledge, if contemplation and action may be more nearly and strongly conjoined and united together than they have been,—a conjunction like unto that of the two highest planets, Saturn, the planet of rest and contemplation, and Jupiter, the planet of civil society and action." And speaking of himself in another place, he says, "We judge also that mankind may conceive some hopes from our example; which we offer not by way of ostentation, but because it may be useful. If any one therefore should despair, let him consider a man as much employed in civil affairs as any other of his age,—a man of no great share of health, who must therefore have lost much time,—and yet, in this undertaking, he is the first that leads the way, unassisted by any mortal, and steadfastly entering the true path, that was absolutely untrod before, and submitting his mind to things, may somewhat have advanced the design."

In the management of all his affairs and transactions Dr. Bowditch was a man of great order and system, and he required it of all with whom he had to do, or over whom he exercised any control. He considered that there was a sort of moral virtue in this, and he could not tolerate any thing like negligence or irregularity. He doubtless had himself acquired this habit from the nature of his favorite study, which demands the undivided attention of the mind, and is peculiarly suited

to form habits of exactness and precision. He felt, too, that it was by a strict and undeviating adherence to order and system, that he had been enabled to accomplish so much in life, to unite the scholar with the financier, the speculative with the practical man. It may have been thought by some, that he carried this love of order to an extreme, and sometimes visited too harshly the deviations from the straight line of his directions. But he felt assured that it was the way to effect the most work and do the greatest good; he knew that the habit could be easily formed in a short time, and that it would then approve and recommend itself; and therefore he would admit of no apology for infractions of his rules.

In the common sense of the word, Dr. Bowditch would not be called a public man, although I have ventured to call him so; for though he twice held a seat in the Executive Council of this State, under the administrations of Governors Strong and Brooks,* yet he had no taste for public life, no ambition for political honors. He could not be drawn from "the still air of delightful studies" to mingle in the turmoil and strife of politics. And yet he was a true-hearted and sound patriot, and not a whit the less so for not being a noisy one. He loved his country, and prized her peculiar institu-

* He was a counsellor in 1815 and 1816, the last of Governor Strong's and the first of Governor Brooks's administration.

tions. He felt a deep interest in the welfare and honor of his native state, and would do anything to maintain the supremacy of the laws, and preserve the peace and order of the community.—He had a remarkably sound and sober mind, good sense being one of its most prominent qualities. Accordingly, he could have no sympathy with those ardent and benevolent reformers who would jumble society into its original elements and bring back ancient chaos again, in order to get a chance to try their hand at making the very best possible commonwealth out of the fragments.* No. He valued the lessons of experience, and prized the gathered wisdom of past ages. He had faith in other men's intelligence, as well as his own, and trusted in the light that had been reflected from a thousand brilliant minds who had pored and pondered over the great questions of government and civil polity, and given us their results in laws and institutions.

Dr. Bowditch thought, with Governor Winthrop, in his noble apology for himself, that "there is a great mis-

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* Sir Walter Scott says, in a letter to his son, then on the continent, "It is possible that you may fall into company with some of those *têtes échauffées*, who are now so common in Germany—men who would pull down the whole political system in order to build it on a better model; a proposal about as wild as that of a man who should propose to change the bridle of a furious horse, and commence his labors by slipping the headstall in the midst of a heath. Prudence, as well as principle, will induce you to avoid this class of politicians, who, I know, are always on the alert to kidnap young men." *Lockhart's Life of Scott, Vol. V. Ch. 7.*

take in the country about liberty. There is a two-fold liberty; natural, and civil or federal. The first is common to man with beasts and other creatures. By this, man, as he stands in relation to man simply, hath liberty to do what he lists; it is a liberty to evil as well as to good. This liberty is incompatible and inconsistent with authority, and cannot endure the least restraint of the most just authority. The exercise and maintaining of this liberty makes men grow more evil, and, in time, to be worse than brute beasts: 'omnes sumus licentiâ deteriores.' This is that great enemy of truth and peace, that wild beast, which all the ordinances of God are bent against, to restrain and subdue it. The other kind I call civil, or federal; it may also be termed moral, in reference to the covenant between God and man, in the moral law, and the politic covenants and constitutions, amongst men themselves. This liberty is the proper end and object of authority, and cannot subsist without it; and it is a liberty to that which is good, just, and honest. This liberty you are to stand for, with the hazard not only of your goods, but of your lives, if need be. Whatsoever crosses this is not authority, but a distemper thereof. This liberty is maintained and exercised in a way of subjection to authority." *

The lawless and flagrant assaults upon property and life which have occurred in this country within a few

* Winthrop's History of New England, II. 229.

years past, casting upon its fair name a stain of dishonor, grieved him to the heart, and stirred his spirit within him. Conversing with him about one of the earliest and most wanton and unprovoked of these outrages,—I mean the conflagration of a religious house in this vicinity, inhabited solely by women and children, by a ferocious mob at midnight,—he told me that had he been summoned, or had an opportunity, he would readily have shouldered his musket, and marched to the spot, and stood in defence of that edifice to the last drop of his blood. There was nothing, indeed, that stirred his indignation like oppression.*

Immediately after this outrage, he called on the Catholic bishop in this city, and put into his hands a sum of money to buy clothes for the women and children who had lost every thing in the flames. It is an agreeable circumstance, well worth recording, that as soon as the bishop heard of Dr. Bowditch's illness, he sent and informed the family, that, to prevent his being disturbed, the bell of the cathedral, which is in the vicinity of his house, should not be rung during his illness, although it was the season of Lent, and religious

* "The Ursuline Convent," on Mount Benedict, in Charlestown, about two miles from Boston, was burnt on the night of the 11th of August, 1834. The prosecuting officer of the Commonwealth, indeed, did his duty, in attempting to procure a conviction of the offenders; but the only atonement that was made for this gross outrage upon justice and humanity, was the sacrifice of a scape-offering in the person of a boy, who, after a short imprisonment, was discharged as too poor a victim.

services were going on almost every day. It is pleasant to see kindness thus reciprocated between divergent sects, and the middle wall of separation broken down by the humane and grateful feelings of a common nature.

The blackened walls of that edifice still remain, a standing monument to the shame of this Commonwealth; which, after receiving from its proprietors an annual tax for its protection, has, to this day, refused to repair the injury and compensate the wrong. Let the legislators of the State look to it. It is not yet too late to make reparation. Till it is done, the pulpit will not cease to lift up its voice against that infamous assault upon religious liberty.

Why is it, my hearers, that all the youthful talent of this country is rushing madly into political life? To how many of these aspirants may we apply, with literal truth, the remark of Lord Bacon, in reference to himself, that "they were born and intended for literature rather than any thing else, and, by a sort of fatality, have been drawn, contrary to the bent of their own genius, into the walks of public life." * Is it not a great mistake, on their part, to suppose that politics is the only or the principal avenue to enduring fame? Is the science of government the only one worth studying, or

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* Ad literas potius quam ad aliud quicquam natus, et ad res gerendas, nescio quo fato, contra genium suum abreptus.—*De Aug. Sci. Lib.* 8, *Cap.* 3.

are civil honors the only ones worth aspiring to? It seems to me that the young men of competent abilities among us, who aim at distinction, those certainly who have leisure and property, might quite as securely seek it in the retired and quiet walks of science and literature, as in the bustling and dusty paths of political life. Are the names of Newton and Milton less eminent than those of Chatham and Fox? Do they not stir the spirit as soon? ay, even as soon as those of Marlborough and Wellington? Are Cuvier and La Place names less likely to live than those of the statesmen and marshals of France? Which are the two greatest names in our own annals, the best known and the most honored the world over? First, Washington; then Franklin; and the latter chiefly as a philosopher, from his attainments and discoveries in science.

The example and success of Dr. Bowditch are full of incitement and encouragement to our young men in this particular, and should especially stimulate those who have leisure and fortune to do something to enable our country to take a respectable place in science and letters among the other nations of the earth; so that the stigma shall not adhere to us of being a race of unlettered republicans. Let them look, too, at more than one recent and successful attempt among us in the department of history.* How much may they not

* Mr. Prescott's "History of Ferdinand and Isabella, the Catholic, of Spain," already alluded to, and Mr. George Bancroft's "History of the

accomplish? And into what pleasant fields will they not be led? Into the various departments of natural history, the different walks of exact science, the rich and instructive annals of our own country, and the delightful province of general literature and philosophy. Let them labor in this field, which will reward all their efforts, instead of delving in a stony and sterile soil.*

Let it not be said that I am wandering from my appropriate province in these remarks. I do not thus

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United States." These are very important and honorable contributions to the growing literature of our country; and we rejoice that we can claim them as the works of Massachusetts men and sons of our venerable University. Dr. Bowditch had read them both through, and admired them both, and spoke with great delight of the chapter on the Quakers, in the last-mentioned work. But does not Mr. Bancroft, in this chapter, run a little into exaggeration? He is so full of enthusiasm on the subject, that he seems to adopt the views and feelings he describes, and, for the nonce, to be a very Quaker himself. This enthusiasm in behalf of an injured sect is generous and delightful. Yet there are two sides to that Quaker question in America; and a young friend of mine, fully competent for the task from the perseverance and accuracy of his investigations, is about to give us the other side. The ancient Quakers, with all their meekness, were the most foul-mouthed of controversialists. Even Roger Williams, the father of religious toleration, could not endure their outrages and indecencies; and although he would not suffer the civil magistrate to trouble them, yet he did not spare them the galling chastisement of the tongue and pen.—See his book entitled "*George Fox Digged out of his Burrows*," and *Knowles's* "*Memoir of Roger Williams*," p. 384, 5.

* "The mind," says Bishop Hall in his Epistle on 'The Pleasure of Study and Contemplation,' "the mind only, that honorable and divine part, is fittest to be employed of those who would reach to the highest perfection of men, and be more than the most. And what work is there of the mind but the trade of a scholar—study?"

narrow the circle of my professional duties. I feel that I am discharging my duty as a Christian minister, if, by any thing I can say, I can induce a young man to cultivate the high powers which God has given him, and devote them to the increase of knowledge, thereby enriching his own mind, and at the same time fostering a healthy spirit and diffusing a wholesome taste through the community.* I have no fear that the path of politics will be deserted, or that the republic will suffer detriment from the absence of candidates for its offices and emoluments. Alas! these will always be too attractive; and what we chiefly need is some counteracting influence, some striking example, like that of Dr. Bowditch, to convince our young men that political life is not the only road to eminence, nor the only adequate and honorable sphere for the exercise and display of their talents. For affording us this evidence, his memory deserves to be honored, and his name to be held in everlasting remembrance.

Dr. Bowditch was a remarkably domestic man. His affections clustered around his own fireside, and found

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* "If the invention of the ship," says Lord Bacon, "was thought so noble, which carrieth riches and commodities from place to place, and consociateth the most remote regions in participation of their fruits, how much more are letters to be magnified, which, as ships, pass through the vast seas of time, and make ages so distant participate of the wisdom, illuminations and inventions, the one of the other."

"The ink of the doctors and the blood of the martyrs" says another, "are of equal price."

their most delightful exercise in his "family of love," as he called it in almost his last moments. His attachment to home and to its calm and simple pleasures was, indeed, one of the most beautiful traits in his character, and one which his children and friends will look back upon with the greatest satisfaction. As Sir Thomas More says of himself, "he devoted the little time which he could spare from his avocations abroad to his family, and spent it in little innocent and endearing conversations with his wife and children; which, though some might think them trifling amusements, he placed among the necessary duties and business of life; it being incumbent on every one to make himself as agreeable as possible to those whom nature has made, or he himself has singled out for, his companions in life." *

His time was divided between his office and his house; and that must have been a strong attraction, indeed, that could draw him into company.† When at

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* "Dum foris totum ferme diem aliis impertior, reliquum meis, relinquo mihi, hoc est literis, nihil. Nempe, reverso domum, cum uxore fabulandum est, garriendum cum liberis, colloquendum cum ministris. Quæ ego omnia inter negotia numero, quando fieri necesse est, (necesse est autem nisi velis esse domi tuæ peregrinus), et danda omnino opera est, ut quos vitæ tuæ comites aut natura providit, aut fecit casus, aut ipse delegisti, his ut te quam jucundissimum compares."—*Preface to the Utopia.*

† If any one would know "how a day should be spent," let him read Bishop Hall's delightful Epistle on that subject. Among other excellent things, he says, "Sweet is the destiny of all trades, whether of the brows, or of the mind. God never allowed any man to do nothing. How miserable is the condition of those men, which spend the time as if it

home, his time was spent in his library, which he loved to have considered as the family parlor. By very early rising, in winter two hours before the light, "long ere the sound of any bell awoke men to labor or to devotion," and "in summer," like Milton, "as oft with the bird that first rises or not much tardier," he was enabled to accomplish much before others were stirring. "To these morning studies," he used to say, "I am indebted for all my mathematics."* After taking his evening walk he was again always to be found in the library, pursuing the same attractive studies, but ready and glad, at the entrance of any visiter, to throw aside his book, unbend his mind, and indulge in all the gayeties of a light-hearted conversation.†

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were given them, and not lent; as if hours were waste creatures, and such as never should be accounted for; as if God would take this for a good bill of reckoning: *Item*, spent upon my pleasures forty years! These men shall once find, that no blood can privilege idleness, and that nothing is more precious to God than that which they desire to cast away—time."

* He might literally apply to himself the apology of the great Roman orator, "Quare quis tandem me reprehendat, aut quis mihi jure succenseat, si quantum cæteris ad suas res obeundas, quantum ad festos dies ludorum celebrandos, quantum ad alias voluptates, et *ad ipsam requiem animi et corporis* conceditur temporis; quantum alii tribuunt tempestivis conviviis; quantum denique aleæ, quantum pilæ; tantum mihi egomet ad hæc studia recolenda sumpsero?"

† "Before my meals and after," says Bishop Hall, in the Epistle just referred to, "I let myself loose from all thoughts, and now would forget that I had ever studied. Company, discourse, recreations, are now seasonable and welcome. After my latter meal, my thoughts are slight. And now the evening is come, no tradesman doth more carefully take in

There was nothing that he seemed to enjoy more than this free interchange of thought on all subjects of common interest. At such times the mathematician, the astronomer, the man of science, disappeared, and he presented himself as the frank, easy, familiar friend. One could hardly believe that this agreeable, fascinating companion, who talked so affably and pleasantly on all the topics of the day, and joined so heartily in the quiet mirth and the loud laugh, could really be the great mathematician who had expounded the mechanism of the heavens, and taken his place with Newton, and Leibnitz, and La Place, among the great proficients in exact science. To hear him talk, you would never have suspected that he knew any thing about science, or cared any thing about it. In this respect he resembled his great Scottish contemporary, who has delighted the whole world by his writings. You might have visited him in that library from one year's end to another, and yet, if you or some other visiter did not introduce the subject, I venture to say that not one word on mathematics would cross his lips. He had no pedantry of any kind. Never did I meet with a scientific or literary man so entirely devoid of all cant and pretension. In conversation he had the simplicity and playfulness and unaffected manners of a child. His own remarks "seem-

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his wares, clear his shopboard, and shut his windows, than I would shut up my thoughts and clear my mind. That student shall live miserably, which, like a camel, lies down under his burden."

ed rather to escape from his mind than to be produced by it." He laughed heartily, and rubbed his hands, and jumped up, when an observation was made that greatly pleased him, because it was natural for him so to do, and he had never been schooled into the conventional proprieties of artificial life, nor been accustomed to conceal or stifle any of the innocent impulses of his nature.*

Who that once enjoyed the privilege of visiting him

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* Dr. Bowditch used to relate a little anecdote concerning himself, which so strongly and beautifully illustrates the perfect naturalness of his character, that I will venture to subjoin it in a note.

. It will be recollected, that in the year 1824, when General Lafayette, in his progress through the country, among other places, visited Boston, the mayoralty of the city was filled by the Honorable Josiah Quincy. Dr. Bowditch, in common with all the world, had a curiosity to behold the entrance of the nation's guest into the city; and accordingly accepted an invitation from a friend, whose house was in Colonnade Row, to take a station on his balcony. But finding that the chariot wheels tarried, and the General delayed his coming, he thought that he should have time to go down to his office to transact a little business, and return in season for the spectacle. But, in the mean time, the procession had arrived and passed on, and was fast advancing to State street. He concluded, therefore, to wait where he was, and, in order to get a nearer and better view, took his stand on the steps of the United States' Bank. On the appearance of the barouche in which Lafayette was seated, Dr. Bowditch remarked that he was glad to see Mr. Quincy at his side; he was the proper man for that place, being the son of one of the earliest and best of the patriots of the Revolution. "As the shout of the multitude rose unto heaven," he said, "I know not how it happened, but I could not keep my place; my hat would not stay on my head, nor could I hold my tongue. And, to my astonishment, I found myself, all at once, in the midst of the crowd by the side of the chariot, and shouting with the rest at the top of my voice." The President of the University recollects distinctly seeing him in the position and attitude thus described.

in that library, can ever forget the scene? Methinks I see him now, in my mind's eye, the venerable man, sitting there close by his old-fashioned blazing wood fire, bending over his favorite little desk, looking like one of the old philosophers, with his silvery hair, and noble forehead, and beaming eye, and benign countenance; whilst all around him are ranged the depositories of the wisdom and science of departed sages and philosophers, who seem to look down upon him benignantly from their quiet places, and spontaneously and silently to give forth to him their instructions. On entering this, the noblest repository of scientific works in the country, I almost fancy I hear him saying with Heinsius, the keeper of the library at Leyden, "I no sooner come into my library, than I bolt the door after me, excluding ambition, avarice, and all such vices; and, in the very lap of eternity, amidst so many divine souls, I take my seat with so lofty a spirit and such sweet content, that I pity all the great and rich who know not this happiness." * If it be possible, let that library be kept together as a memorial of its founder.

At first sight there may seem someting ludicrous and puerile in this grave philosopher and calculator, this votary of abstract science, huzzaing in a mixed crowd on a city's holiday. But to me it seems a most natural and beautiful expression of his simplicity, his self-forgetfulness, his utter unconsciousness of greatness, his generous sympathy with the people, and his grateful and ardent patriotism. This little incident cannot fail to raise him in the estimation of every right-minded and single-hearted man.

* "Libraries are the shrines where all the relics of the ancient saints,

It may here be remarked, that although mathematics was his chief and favorite pursuit, Dr. Bowditch still had a taste and love for general literature. He was fond of Shakspeare, and remembered and could repeat whole passages from his plays. He loved poetry, particularly the poetry of Burns and our own Bryant and Sprague.* Many of his favorite pieces he not only had by heart, but also had them written down, for convenience' sake, on the

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full of true virtue, and that without delusion or imposture, are preserved and reposed."—*Lord Bacon's Advancement of Learning.*

"For him was lever han at his beddes head
A twenty bokes, clothed in black or red,
Of Aristotle or his philosophy,
Than robes riche, or fidel, or sautrie.
And all that he might of his friends hente,
On bokes and on lerning he it spente."—*Chaucer.*

* One of Dr. Bowditch's favorite pieces, which he had often upon his lips, was that exquisite gem of Charles Sprague's, entitled "The Winged Worshippers; addressed to two Swallows, that flew into a Church during religious service," beginning as follows:—

"Gay, guiltless pair,
What seek ye from the fields of heaven?
Ye have no need of prayer,
Ye have no sins to be forgiven."

What has become of the author of the splendid Ode on Shakspeare? Is he lost for ever to the Muses, and are we to have nothing more from his sweet reed? Will he not at least collect his poems into a volume for the world's delight?—"*A bird that can and will not sing*——"

On the appearance of Hilliard and Gray's beautiful edition of Milton's Poetical Works, Dr. Bowditch purchased a copy, and soon after said to one of the firm, Mr. James Brown, "I thank you for publishing that edition, for you have led me to read Milton through once more with increased delight."

covers of his mathematical common-place book. I recollect, among others, thus copied off, "The Cotter's Saturday Night," a selection which evinced at the same time his good feeling and his good taste. I also recollect observing on his copy of Newton's Principia many commendatory verses on Newton, selected from Voltaire and other French poets.

But I must hasten on to speak, as briefly and comprehensively as I can, of what is the most important part of every man—namely, his moral and religious character—the qualities of his heart, and his principles of action.

Dr. Bowditch was a man of unsullied purity, the most rigid integrity, and the most uncompromising principle. Through life, truth seems to have been at once the great object of his pursuit, and his ruling principle of action. "FOLLOW TRUTH," might have been the motto on his escutcheon. "*Truth! Truth! Truth!*" were among his last words to one whom he dearly loved. He was himself perfectly transparent. A child could see through him.* There was no opaqueness in

* Dr. Bowditch was perfectly fair and just in the estimate which he formed of his own capacities and gifts. He did not, on the one hand, overrate his talents; nor, on the other hand, did he, as some do, with a sort of back-handed humility, purposely undervalue his powers, in order to enjoy the pleasure of being contradicted by those about him and told that he was really a much greater man than he seemed willing to admit. As an illustration of this, let me mention a little conversation of his. "People," said he, "are very kind and polite, in mentioning me in the same breath with La Place, and blending my name with his. But they

his heart, any more than in his intellect. It was as clear as crystal, and the rays of moral truth were transmitted through it without being refracted or tinged. In all his intercourse and transactions he was remarkably frank and candid. He revealed himself entirely. He had no secrets. He kept nothing back, for he had nothing to conceal. He lived openly, and talked freely, of himself, and of his doings, and of every thing that was uppermost in his mind. He never hesitated to speak out what he thought on all subjects, public and private, and he avowed his opinions of men and things with the utmost freedom and unconcern. It seemed to me that he never had the fear of man before his eyes, and that it never checked, in the least, the free and full utterance of his sentiments.

He was a singularly modest man. He made no pretensions himself, and there was nothing that he so much despised in others.* He was remarkably simple

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mistake both me and him; we are very different men. I trust I understand his works, and can supply his deficiencies, and correct his errors, and render his book more intelligible, and record the successive advancements of the science, and perhaps append some improvements. But La Place was a genius, a discoverer, an inventor. And yet I hope I know as much about mathematics as Playfair!"

* As an illustration of Dr. Bowditch's remarkable modesty and simplicity of character, I relate the following little incident, for which I am indebted to JOHN R. ADAN, Esq., one of those who were favored with his friendship and confidence. He tells me that, in the year 1811, the Hon. Walter Folger, of Nantucket, a self-educated man, and quite eminent as a mathematician, and highly respectable in every point of

in all his manners and intercourse with the world. He put on no airs and assumed no superiority on the ground of his intellectual attainments, but put himself on a level with every one with whom he had any concern. He reverenced integrity and truth wherever he found them, in whatever condition in life. He felt and showed no respect for mere wealth or rank. He fearlessly rebuked, to his face, the mean and purse-proud nabob, and "condescended to men of low estate."

Dr. Bowditch was a truly conscientious man. He was always true to his moral as well as intellectual convictions, and followed them whithersoever they led. He had great faith in the rectitude of his moral perceptions, and in the primary decisions of his own judgment and moral sense; and he carried them forth and acted

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view, having been successively a judge of the Common Pleas, a senator in the Legislature of this State, and a member of Congress, came to Boston, and expressed a desire to see Mr. Bowditch. Mr. Adan accordingly accompanied him to Salem. Mr. Folger immediately proceeded alone to Mr. Bowditch's house, and knocked at the door, which was opened by Mr. Bowditch himself, when the following conversation ensued. *Folger*. "Is Mr. Bowditch at home?" *Bowditch*. "Yes, sir, that is my name." *F*. "But I wish to see Mr. Bowditch, the astronomer and mathematician." *B*. "Well, sir, folks sometimes call *me* by those names." *F*. "My name, sir, is Walter Folger, of Nantucket. I have long corresponded with Mr. Bowditch the mathematician, and I want to see him." *B*. "I am the very person, then, and I am very happy to see you. Walk in." *F*. "Well, upon my word, sir, I did not expect to find my correspondent so young a person. I thought I should see an older head upon those shoulders." He went in, and had a most delightful interview. Mr. B. was at this time thirty-eight years old.

them out instantly. The word followed the thought, and the deed the feeling, with the rapidity of lightning. This straight-forwardness and frankness were among the secret causes of the remarkable influence which he confessedly exercised over the minds and judgments of others. By his honesty, as well as by his resoluteness and decision, he was the main-spring of every thing with which he was connected. By this moral influence he controlled and swayed all men with whom he was associated. As Ben Jonson says of Lord Bacon, "he *commanded* where he spoke." *

Dr. Bowditch was a man of ardent natural feelings, and of an impetuous temperament. He was strong in his attachment to men and to opinions, and was not easily turned from any course of speculation or action, which he had once satisfied himself was right, wise and good. At the same time, he always kept his mind open to evidence; and if you brought before him new facts and arguments, he would reconsider the subject,—

* The Hon. SAMUEL T. ARMSTRONG, formerly Lieutenant Governor of the Commonwealth, and under whose administration, as Mayor of the City, the iron fence round the Common was undertaken and completed, has told me the following anecdote, which illustrates Dr. Bowditch's decision of character. He was standing at the bottom of the Common one day, conversing with Dr. Bowditch, and, among other things, mentioned the obstacles that had been thrown in his way in attempting to carry the mall through the burying-ground. "Sir," said Dr. Bowditch, "it depends entirely upon you. If you say '*Volo*,' it will go. If you say '*Nolo*,' it won't." "I did not exactly understand his Latin words," said the Mayor, "but I knew what he meant, and I acted accordingly." He said "*Volo*," and the thing was done.

deliberately, not hastily,—and *the next day*, perhaps, would tell you that you were in the right, and that he had altered his mind. He was sometimes quick, warm, and vehement in expressing his disapprobation of the character or conduct of an individual, particularly if he thought that the person had practised anything like duplicity or fraud. In such cases, his indignation was absolutely scorching and withering. But he never cherished any personal resentments in his bosom. He did not let the sun go down upon his wrath. His anger was like a cloud, which passes over the disk of the moon, and leaves it as mild and clear as before; or, as the judicious Hooker's was represented to be, "like a vial of clear water, which, when shook, beads at the top, but instantly subsides, without any soil or sediment of uncharitableness."

Let me relate an incident illustrative of this remarkable trait in his character. Dr. Bowditch had been preparing a plan of the town of Salem, which he intended soon to publish. It had been the fruit of much labor and care. By some means or other, an individual in the town had surreptitiously got possession of it, and had the audacity to issue proposals to publish it as his own. This was too much for Dr. Bowditch to bear. He instantly went to the person, and burst out in the following strain: "You villain! how dare you do this? What do you mean by it? If you presume to proceed any farther in this business, I will prosecute you to the utmost extent of the

law." The poor fellow cowered before the storm of his indignation, and was silent; for his wrath was terrible. Dr. Bowditch went home, and slept on it; and the next day, hearing from some authentic source that the man was extremely poor, and had probably been driven by the necessities of his family to commit this audacious plagiarism, his feelings were touched, his heart relented, his anger melted away like wax. He went to him again, and said, "Sir, you did very wrong, and you know it, to appropriate to your own use and benefit the fruit of my labors. But I understand you are poor, and have a family to support. I feel for you, and will help you. That plan is unfinished, and contains errors that would have disgraced you and me had it been published in the state in which you found it. I'll tell you what I will do. I will finish the plan; I will correct the errors; and then you shall publish it for your own benefit, and I will head the subscription list with my name."

What a sublime, noble, Christian spirit was there manifested! This was really overcoming evil with good, and pouring coals of fire upon the poor man's head. The natural feeling of resentment, which God has implanted within all bosoms for our protection against sudden assault and injury, was overruled and conquered by the higher, the sovereign principle of conscience.*

* Compare Bishop Butler's admirable sermons on "Human Nature" and "Resentment," in which this subject is handled in a masterly man-

I ought to have mentioned, in an earlier part of this discourse, that Dr. Bowditch was, in all his habits of life, a very regular and temperate man. He never tasted any wine till the age of thirty-five.* He approved the remarkable changes which have been effected in the customs of society, within a few years, by "The Temperance Reform," and he heartily rejoiced in the success of that good cause. God bless it and speed it! and give its advocates discretion and sobriety as well as courage and zeal! If they would crush the serpent, they must have the wisdom of the serpent and the harmlessness of the dove.

I hope I may be pardoned in now mentioning a circumstance, known probably only to myself, and which, though of a personal nature, I venture to relate, both in discharge of the debt of gratitude which I owe to his memory, and as a very striking illustration of two traits in his character—his independence, and the strength and the constancy of his attachments. At an early stage in my ministry in this place, some twelve years

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ner by the prince of ethical writers. Why is it that we hear, in these days, the pernicious sentiment avowed and inculcated, that we are to follow impulse and feeling rather than reason and principle? So thought not those great lights of philosophy, Samuel Butler and John Locke.

* During the latter years of his life Dr. Bowditch was accustomed to drink two glasses of wine a day, one after dinner, and the other in the evening. This he called his "certain quantity." If he ever exceeded this, which was seldom or never, he classed the excess, in his mathematical phrase, among "the uncertain quantities."

ago,—at one of those periods of discouragement and despondency through which every young and inexperienced minister is called to pass, particularly in a large city like this, and which are calculated to cower and crush the spirit of every one who has not nerves of steel and a heart of flint,—at that trying moment Dr. Bowditch stood by me firm as a rock. He assured me of his confidence, his approbation, and his firm adherence. "Never mind it," said he, "go on and do your duty, and be not anxious about the result. I will stand by you to the last." These few words, from *such* a man, were encouraging. They cheered my heart, they nerved my mind, they strengthened my hands, they enabled me to go forward without fear. I felt as though I had Atlas under me, shoring me up.* This assurance, too, was entirely voluntary and unsought; and only a few months before his death he again alluded to the subject, commended the quiet and steady course which I had pursued, and congratulated me on the result in the peaceful and prosperous condition of the parish.

No one has ever before heard me, in public or private, allude to this subject. For I am not one of those who tell their griefs and sue for sympathy. I appeal to you, my faithful parishioners, whether you have ever heard me lisp a syllable of complaint on this point. I

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* "——————————— Atlas,
——— æthereum qui fert cervicibus axem."

kept my feelings to myself; and I now speak thus publicly of the matter, as a mere incident in the annals of the parish, and with no feeling but that of gratitude to the memory of my independent and unflinching friend.*

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* Next to the inestimable service of parental guidance and instruction, I have always considered this the greatest favor ever rendered to me in the whole course of my life, with the single exception of the priceless benefit conferred on me by him who was the benefactor of my youthful mind, and first imbued it with a love of good learning. It gives me pleasure thus to acknowledge the debt which I owe to my early instructer, B. A. Gould, Esq. (for fourteen years, from 1814 to 1828, the accomplished and successful Master of the Boston Latin School) to whom I can in literal truth apply the words in which Cicero speaks of his preceptor, Licinius Archias:—"Si quid est in me ingenii, quod sentio quam sit exiguum; aut si qua exercitatio dicendi, in quâ me non infitior mediocriter esse versatum; aut si hujusce rei ratio aliqua, ab optimarum artium studiis ac disciplinâ profecta, a quâ ego nullum confiteor ætatis meæ tempus abhorruisse; earum rerum omnium vel in primis hic A. Licinius fructum a me repetere prope suo jure debet. Nam quoad longissimè potest mens mea respicere spatium præteriti temporis, et pueritiæ memoriam recordari ultimam, inde usque repetens, hunc video mihi principem et ad suscipiendam et ad ingrediendam rationem horum studiorum extitisse."

When, in the year 1828, certain measures and occurrences took place, in connection with the College, one in particular of a very painful nature, my views and feelings were probably as strong, and as strongly expressed, as those of any person in the community; but not more strongly to others than they were to Dr. Bowditch himself. More than once I have had long and warm conversations with him on these points; and though my views were unaltered, I will bear testimony to the perfect kindness and candor with which he listened to my dissent; and this is not the only instance in which I have differed from him decidedly, but amicably. When these facts are considered, and it is known that his eulogist has never been his echo nor parasite, it is hoped that the strong terms in which his character has been commended in this Discourse will

In his religious views, Dr. Bowditch was, from examination and conviction, a firm and decided Unitarian. But he had no taste for the polemics or peculiarities of any sect, and did not love to dwell on the distinctive and dividing points of Christian doctrine. His religion was rather an inward sentiment, flowing out into the life, and revealing itself in his character and actions. It was at all times, and at all periods of his life, a controlling and sustaining principle. He confided in the providence and benignity of his Heavenly Father, as revealed by his blessed Son, our Lord, and had the most unshaken confidence in the wisdom and rectitude of all the divine appointments. He looked forward with firm faith to an immortality in the spiritual world.

He said to one, in his last illness, "From my boyhood my mind has been religiously impressed. I never did or could question the existence of a Superintending Being, and that he took an interest in the affairs of men. I have always endeavored to regulate my life in subjection to his will, and studied to bring my mind to an acquiescence in his dispensations; and now, at its close, I look back with gratitude for the manner in which he has distinguished me, and for the many blessings of my

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not be set down to flattery nor to the partiality of friendship. I am not conscious of having overstated or exaggerated anything. I certainly have aimed at drawing a true and just portrait. Those who knew him personally, will judge how far I have succeeded. While writing, I feel all the time as though I heard his voice in my ear—"If you say anything about me, tell the *truth*, the *whole* truth."

lot. I can only say that I am content, that I go willingly, resigned, and satisfied." To another he said, "In my youth I fell in with some young associates who were skeptically disposed, having read the books and imbibed the notions of Voltaire and Paine, and they labored hard to make me of the same way of thinking with themselves. But I battled it with them stoutly, not with the logic of Locke, for I knew nothing about that, but with the logic *here*"—pointing to his breast.

Dr. Bowditch was very familiar with the Scriptures, both of the Old and New Testaments, more so than some professed theologians who make it their especial study. He had read the Bible in his childhood, under the eye of a pious mother, and he loved to quote and repeat the sublime and touching language of Holy Writ. *

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* I must always deeply regret, as a Christian minister, believing in the authority and importance of the Christian ordinances, that Dr. Bowditch did not throw the weight of a *public profession* of religion into the scale of Christianity, and thereby satisfy the world, as he had already and amply satisfied his family and his friends, of the strength and reality of his religious faith. The public testimony of such a man, possessed of such a sound, clear, discriminating mind, and of such acute and logical powers, to the truth and worth of our holy religion, would have been invaluable. I believe that he was deterred from doing this solely by his general dislike of *professions* of every kind. He certainly could not have been prevented by shame or the fear of man. He used to say that people must judge of him by what he was and did, and not by what he professed. But yet, is not the profession of Christianity, by an observance of its peculiar ordinance, an act?—and is not the omission of it equally an act?—A sense of duty compels me to say thus much on this subject.

Such, my hearers, had been the life, and such the character of our distinguished fellow-citizen and beloved fellow-worshipper; and such was he to the last, through all the agonies of a most distressing illness. In the midst of health and usefulness, in the full discharge of the duties of life, and in the full enjoyment of its satisfactions, the summons suddenly comes to him to leave it. And he meets the summons with the utmost equanimity and composure, with the submission of a philosopher and with the resignation of a Christian. He certainly had much to live for—few have more—but he gave up all without repining or complaint. He said he should have liked to live a little longer, to complete his great work, and see his younger children grown up and settled in life. "But I am perfectly happy," he added, "and ready to go, and entirely resigned to the will of Providence." He arranged all his affairs, gave his directions with minuteness, and dictated and signed his last will and testament. While his strength permitted, he continued to attend to the necessary affairs of his office, and on the day previous to his death put his name to an important instrument. In the intervals of pain he prepared, as I have already remarked, the remaining copy and corrected the proof sheets of the fourth volume of his great work, the printing of which was nearly finished at the time of his death. It is a little remarkable that the last page that he read was the one thousandth. It was gratifying to him to find that his mind was unenfeebled by disease and pain; and one

day, after solving one of the hardest problems in the book, he exclaimed, in his enthusiastic way, "I feel that I am Nathaniel Bowditch still—only a little weaker."

He continued, indeed, in all respects, the same man to the last. He did not think that this was the time to put on a new face or assume a new character. His feelings were unaffected, his manners unchanged, by the prospect before him. He seemed to those about him only to be going on a long journey. To the end, he manifested the same cheerfulness, nay pleasantry, which he had when in health, without, however, the least admixture of levity. In his great kindness, he exerted himself to see many friends, every one of whom, I believe, will bear testimony to his calm, serene state of mind. The words which he spoke in those precious interviews they will gather up and treasure in their memory, and will never forget them so long as they live.* She certainly will not, to whom, when on her taking leave of him she had said "Good night," he replied,

* Will the Chief Magistrate of the Commonwealth, will the President of the University, ever forget their interviews with the dying philosopher? The Governor, in his beautiful address to the Academy, on introducing the Resolutions that were passed in honor of their illustrious associate, after briefly describing his interview, alludes, in a very modest and touching manner, to the commendation passed by the departing sage on a recent and most painful act of his executive authority. The Governor should know that the language of Dr. Bowditch is but the expression of the public mind, and that he will be sustained in all his measures to maintain the majesty and supremacy of the laws, and preserve the public order and peace.

"No, my dear, say not 'Good night,' but 'Good morning,' for the next time we meet will be on the morning of the resurrection."

One day, toward the close of his lingering illness, after he had himself given up all hope of recovery, he asked one who stood by him what were the two Greek words which signify "easy death." The word not immediately suggesting itself to the person, and he having mentioned over several phrases and combinations of words, Dr. Bowditch said, "No, you have not got the right word; but you will find it in Pope's Correspondence." The person found the letter, which was the last that Dr. Arbuthnot * wrote to his friend. The conclusion of it is as follows; "A recovery, in my case, and at my age, is impossible. The kindest wish of my friends is euthanasia." On hearing this read, Dr. Bowditch said, "Yes, that is the word, euthanasia. That letter I read forty years ago, and I have not seen it since. It made an impression on my mind which is still fresh. It struck me, at the time I read it, that the good physi-

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* Dr. Arbuthnot was an eminent physician and brilliant wit in the time of Queen Anne, the contemporary and friend of Swift and Pope. He died in 1735. Dr. Johnson, in his Life of Pope, says of him, "Arbuthnot was a man of great comprehension, skilful in his practice, versed in the sciences, acquainted with ancient literature, and able to animate his mass of knowledge by a bright and active imagination; a scholar, with great brilliance of wit; a wit, who, in the crowd of life, retained and discovered a noble ardor of religious zeal; a man estimable for his learning, amiable for his life, and venerable for his piety."

cian who wrote it would certainly have an easy death. It could not be otherwise. The excellent, the virtuous, must be happy in their death." He afterwards frequently recurred to this subject, and the day previous to his departure, he said, "This is, indeed, euthanasia."

Through the whole of his illness he manifested the same happy and delightful frame of mind. His room did not appear like the chamber of sickness and dissolution. The light of his serene and placid countenance dispelled all gloom, and his cheerful composure robbed death of all its bitterness and anguish. He exemplified in his own case the sentiment so beautifully expressed by Hafiz, the Persian poet, which he loved to repeat:—

> "On parents' knees, a naked, new-born child,
> Weeping thou sat'st, whilst all around thee smiled;
> So live, that sinking in thy last, long sleep,
> Calm thou may'st smile, whilst all around thee weep."

He did not wish to see those about him look sad and gloomy. On one occasion he said, "I feel no gloom within me; why should you wear it on your faces?" And then he called for Bryant's Poems, and desired them to read his favorite piece, "The Old Man's Funeral."

> "Why weep ye then for him, who, having won
> The bound of man's appointed years, at last,
> Life's blessings all enjoyed, life's labors done,
> Serenely to his final rest has past?"

And then he went on and commented on the remaining lines of the poem, pointing out those which he thought

were descriptive of himself, and modestly disclaiming others that were commendatory, as not belonging to him; but which all impartial persons would unite in saying were singularly applicable to his character.

On the morning of his death, when his sight was very dim, and his voice almost gone, he called his children around his bedside, and arranging them in the order of age, pointed to and addressed each by name, and said, "You see I can distinguish you all; and I now give you all my parting blessing. The time is come. Lord, now lettest thou thy servant depart in peace, according to thy word." These were his last words. After this he was heard to whisper, in a scarcely audible tone, the words "pretty, pleasant, beautiful." But it cannot be known, whether he was thinking of his own situation as pleasant, in being thus surrounded at such a time by those he loved, or whether he "snatched a fearful joy" in a glimpse of the spiritual world. Soon after this he quietly breathed away his soul, and departed. "And the end of that man was peace." Such a death alone was wanting to complete such a life and crown and seal such a character.—He died on Friday, the 16th day of March, and I am now pronouncing his eulogy on the last day of his 65th year.*

* The disease of which Dr. Bowditch died was found, by a *post mortem* examination, to be a schirrus in the stomach, a disease of the same type with that which caused the death of Napoleon Buonaparte.

He was buried, as he had lived, privately and without parade or show, on the quiet morning of the last Sabbath.* His funeral was attended only by his family and two others; yet, in the person of the Chief Magistrate, I fancied I saw the Spirit of the Commonwealth doing homage to the talents and virtues of her illustrious son. As the hearse passed along through the silent streets, bearing that precious dust to its last resting-place, the snow-flakes fell upon it, the fit emblems of his purity and worth.† And many a wet eye, here, and in the place of his nativity, and elsewhere, wept for him, and many a heart blessed his memory, and mourned that a friend, and a benefactor, and a good man had departed.

He has built his own monument,‡ more enduring than

For four weeks previous to his death, he could take no solid food, and hardly swallowed any liquid. He suffered, however, but little from hunger, but constantly from thirst; and the only relief or refreshment he could find was in frequently moistening his lips and mouth with cold water. His frame was consequently exceedingly attenuated and his flesh wasted away. At intervals his sufferings were so intense, that, as he said, the body at times triumphed over the spirit; but it was only for a moment; and the spirit resumed again and retained its natural and legitimate sovereignty.

* "Funus, sine imaginibus et pompâ, per laudes ac memoriam virtutum ejus celebre fuit." *Tacitus, Ann. Lib.* II. § 73.

† His body was deposited by the side of his wife's, in his own tomb, under Trinity Church, in Summer Street.

‡ And yet I trust that a material and visible monument will ere long be erected upon one of the beautiful knolls of the Cemetery at Mount Auburn, to remind the stranger and the passer-by of the labors, services and worth of this great and good man. I have an idea and plan of my

marble; and in his splendid scientific name, and in his affectionate and delightful character, has bequeathed to his children the richest legacy. His spirit, I doubt not,

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own on this subject, which I will venture to suggest. Let the ship-masters and mates throughout the United States, and all seamen who have actually used the "Practical Navigator," give one dollar each, (those who please may give more) towards the erection of a monument of white marble, in a style of severe and simple grandeur, befitting his character; and let the amount be collected in every seaport by the Chamber of Commerce, the Marine Society, and if neither of these exist, by some Insurance Company, or by the Collector of the port.

Let the monument be a four-sided figure. On one of the faces of the die let there be a few geometrical figures, a circle, a triangle, &c. around a ship in the centre, under full sail, with the American flag flying at the mizzen-peak, and the motto over it, DIRIGO, *I guide*. On the opposite face let there be two books, inscribed THE PRACTICAL NAVIGATOR, and MÉCANIQUE CÉLESTE. Over the former, let there be a sextant and compass; and over the latter, the planet Saturn, with its rings, and the constellation Ursa Minor with the pole-star. The inscription may be as follows:—

[*On the third face.*]

NATHANIEL BOWDITCH,

THE AMERICAN PILOT AND MATHEMATICIAN,

THE AUTHOR OF

THE PRACTICAL NAVIGATOR,

THE EXPOUNDER OF

THE MECHANISM OF THE HEAVENS.

[*On the opposite face.*]

THE SEAMEN OF THE UNITED STATES,

IN GRATEFUL REMEMBRANCE OF

HIS INESTIMABLE SERVICES,

RAISE THIS MONUMENT TO

THEIR GUIDE AND BENEFACTOR.

and *her* spirit, will still continue to influence and guide them. And let them remember the sentiment of the Roman annalist, that "the true way of testifying our respect and love for the departed is not to follow them with an unavailing grief, but to remember their wishes and fulfil their injunctions."* They have the satisfaction of reflecting that their parent lived a happy, an honorable, and a useful life. The sailor traverses the sea more safely by means of his labors, and the widow's and the orphan's treasure is more securely guarded in consequence of his care. He was the Great Pilot who steered all our ships over the ocean; and though dead, he yet liveth, and speaketh, and acteth, in the recorded wisdom of his invaluable book. The world has been the wiser and the happier that he has lived in it.‡

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* "Non hoc præcipuum amicorum munus est, prosequi defunctum ignavo questu; sed quæ voluerit meminisse, quæ mandaverit exequi."—*Tacitus, Ann. Lib. II.* § 71.

† As soon as the news of Dr. Bowditch's death reached Baltimore, the flags of all the vessels were displayed at half-mast; and the midshipmen attached to the United States Naval School at Gosport, Va., on hearing of the same event, resolved, as a testimony of respect, to wear crape on the left arm for thirty days. Why has not the Secretary of the Navy ordered the flags of our national ships to be lowered in honor of the Great Pilot?

‡ No one can fail to be struck with the remarkable similarity between the circumstances in the life, death and character of Dr. Bowditch and those of Agricola, as described by Tacitus.

"Finis vitæ ejus nobis luctuosus, amicis tristis, extraneis etiam ignotisque non sine curâ fuit. Vulgus quoque, et hic aliud agens populus, et per fora et circulos locuti sunt; nec quisquam, auditâ morte Agricolæ, aut

He has left an example, as I intimated in the beginning of this Discourse, full of instruction and encouragement to the young, and especially to those among them who are struggling with poverty and difficulties. He has shown them that poverty is no dishonor, and need be no hindrance; that the greatest obstacles may be surmounted by persevering industry and an indomitable will. He has shown them to what heights of greatness and glory they may ascend by truth, temperance, and toil. He has proved to them that fame need not be sought for solely in political life; although that is a worthy field, and the country must be served,—and served, too, not by the worst, but by the best men,—not by the factious, the ignorant, the scheming, but by the wisest, the most enlightened, the best accomplished that we have among us; by men who dare to tell the people of their duties as well as of their rights; and who, instead of meanly flattering them for their votes, will boldly speak to them the words of truth and soberness, and point out to them their errors and faults.

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lætatus est, aut statim oblitus. Quod si habitum quoque ejus posteri noscere velint, decentior quàm sublimior fuit: nihil metûs in vultu: gratia oris supererat: bonum virum facilè crederes, magnum libenter. Et ipse quidem, quamquam medio in spatio integræ ætatis ereptus, quantum ad gloriam, longissimum ævum peregit. Quippe et vera bona, quæ in virtutibus sita sunt, impleverat. Tu verò felix, Agricola, non vitæ tantum claritate, sed etiam opportunitate mortis: ut perhibent qui interfuerunt novissimis sermonibus tuis, *constans et libens fatum excepisti.*

"Si quis piorum manibus locus; si, ut sapientibus placet, non cum corpore exstinguuntur magnæ animæ; placidè quiescas, nosque, domum

Above all, Dr. Bowditch has left us a most glorious and precious legacy in his example of integrity, love of truth, moral courage, and independence. He has taught the young men here, and the world over, that there is nothing so grand and beautiful as moral principle, nothing so sublime as adherence to truth, and right, and duty, through good report and through evil report. He has, indeed, blessed the world greatly by his science and his practical wisdom; but quite as much, nay, far more, I think, by his upright and manly character. He has taught mankind that reverence for duty, and trust in Providence, and submission to His will, and faith in the rectitude of all His appointments, and a filial reliance upon His love, are sentiments not unworthy nor unbecoming the greatest philosopher.

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tuam, ab infirmo desiderio et muliebribus lamentis ad contemplationem virtutum tuarum voces, quas neque lugeri neque plangi fas est: admiratione te potius quam temporalibus laudibus, et, si natura suppeditet, æmulatione decoremus. Is verus honos, ea conjunctissimi cujusque pietas. Id filiis quoque præceperim, sic patris memoriam venerari, ut omnia facta dictaque ejus secum revolvant, famamque ac figuram animi magis quàm corporis complectantur. Non quia intercedendum putem imaginibus, quæ marmore aut ære finguntur: sed ut vultus hominum, ita simulacra vultûs imbecilla ac mortalia sunt; forma mentis æterna, quam tenere et exprimere, non per alienam materiam et artem, sed tuis ipse moribus possis. Quidquid ex Agricolâ amavimus, quidquid mirati sumus, manet mansurumque est in animis hominum, in æternitate temporum, famâ rerum. Nam multos veterum, velut inglorios et ignobiles, oblivio obruet. Agricola, posteritati narratus et traditus, superstes erit."

For this we honor and eulogize him; not for wealth, title, fortune, those miserable outsides and trappings of humanity, but for the qualities of the inner man, which still live, and will live for ever. He studied the stars on the earth—may he not now be tracking their courses through the heavens? Long ere this, perhaps, he knows all the beauties and the mysteries of their tangled mazes—has examined the rings of Saturn and the belts of Jupiter, traversed the milky way, and chased the comet through infinity. Methinks I hear his departing and ascending spirit exclaiming, as it wings its flight upwards, in the language of the beautiful hymn:—

"Ye golden lamps of heaven! farewell,
With all your feeble light:
Farewell, thou ever-changing moon,
Pale empress of the night!

And thou, refulgent orb of day!
In brighter flames arrayed,
My soul, which springs beyond thy sphere,
No more demands thine aid.

Ye stars are but the shining dust
Of my divine abode,
The pavement of those heavenly courts,
Where I shall reign with God.

The Father of eternal light
Shall there his beams display;
Nor shall one moment's darkness mix
With that unvaried day.

"Many shall commend his understanding; and so

long as the world endureth, it shall not be blotted out. His memorial shall not depart away, and his name shall live from generation to generation."

See page 20.

APPENDIX.

Some idea of the sensation produced in this community by the decease of Dr. BOWDITCH, may be gathered from the following proceedings of various public bodies, with which he was connected.

THE AMERICAN ACADEMY.

At a special meeting of the American Academy of Arts and Sciences, held March 20th, 1838, the following Resolves were presented by his Excellency Edward Everett, and adopted unanimously by the Fellows of the Academy:—

Whereas it has pleased Divine Providence to remove from this life NATHANIEL BOWDITCH, President of the American Academy of Arts and Sciences, the Fellows of the Academy, at a special meeting called for the purpose of taking due notice of this melancholy event, unanimously adopt the following resolutions, expressive of their feelings on this sorrowful occasion:—

Resolved, That the Fellows of the American Academy of Arts and Sciences entertain the liveliest sense of the exalted talents and extraordinary attainments of their late President, who stood preëminent among the men of science in the United States, and who, by universal consent, has long been regarded as one of the most distinguished mathematicians and astronomers of the age; that we consider his reputation as one of the most precious treasures of our common country; that we deeply deplore his loss in the fullness of his intellectual power; and that we esteem it our sacred duty to cherish his memory.

Resolved, That in addition to the loss which they have sustained, as members of this scientific body, in being deprived of their distinguished associate and head, whose name has for many years conferred honor on their institution, and whose communications

are among the most valuable contents of the volumes of the Academy's Memoirs, the Fellows of the Academy, as members of the community, lament the loss of a friend and fellow-citizen, whose services were of the highest value in the active walks of life;—whose entire influence was given to the cause of good principles;—whose life was a uniform exhibition of the loftiest virtues;—and who, with a firmness and energy which nothing could shake or subdue, devoted himself to the most arduous and important duties, and made the profoundest researches of science subservient to the practical business of life.

Resolved, That the Fellows of the Academy deeply sympathize with the family of their late President in the loss of a faithful, affectionate, and revered parent, and that the officers of the Academy be requested to address to them a letter of respectful condolence.

Resolved, That the officers of the Academy be a committee to procure a bust in marble of the late President, to be placed in the hall of the Academy, and to adopt and carry into execution such other measures as they may deem expedient, in honor of the memory of one, who among living men of science has left few equals.

Resolved, That an attested copy of these resolutions be transmitted by the Corresponding Secretary to the family of the deceased, and to the various learned Societies in Europe and America of which he was a member, and that they be furnished for publication in the papers of the city.

A true copy of record.—Attest,

DANIEL TREADWELL,
Recording Secretary.

Boston, March 21, 1838.

HARVARD UNIVERSITY.

At a special meeting of the President and Fellows of Harvard College, held on the 20th of March, 1838, the following preamble and votes were unanimously adopted:—

This Board having been informed of the death, on the 16th

instant, of the Hon. NATHANIEL BOWDITCH, LL. D., a Fellow of this College, it was thereupon unanimously

Voted, That this Corporation, in common with the friends of science and religion, in this and every land, in which his attainments and virtues were known, lament the loss the world has sustained by the death of one, not more eminent as a philosopher, than honored as a citizen, and beloved as a man; who fulfilled the duties of a public and private life with an assiduity, an exactness, a fidelity and a felicity seldom equalled, and never excelled; and who, by combining great simplicity of manners and singleness of purpose, with an integrity, through life, without blemish and without stain, so acquired the confidence of his contemporaries, as to be regarded as the pillar and pride of every Society of which he was an active member; the effects of which never failed to be seen and acknowledged in its prosperity and success.

This Corporation, in common with all others which have been blessed with his counsels and labors, deem it peculiarly their duty distinctly and gratefully to acknowledge the benefits Harvard College has derived from the extraordinary endowments he possessed, and by which, in the exercise of his characteristic zeal, intelligence and faithfulness, he ever sustained and advanced al its interests.

Voted, That the President be requested to communicate this vote to the family of Dr. Bowditch.

True extract from the records.—Attest,

(Signed) JAMES WALKER,
Secretary of the Corporation.

YALE COLLEGE.

At a meeting of the President, Professors and Tutors of Yale College, the following resolutions were adopted:—

Resolved, That this faculty have heard, with deep concern, of the death of the Hon. NATHANIEL BOWDITCH, late of Boston; and that this painful event has bereaved not only his family, but his country and mankind; especially as he was cut off in the vigor of his faculties, in the maturity of his fame, and in the full course of his usefulness.

Resolved, That we respectfully and feelingly sympathize with the children of the illustrious deceased, whose memory, justly dear to the country which he honored, is cherished still more affectionately by those who were so happy as to call him their father.

Resolved, That a copy of the above resolutions be transmitted to the family of the late Dr. Bowditch, and that the President of the College be requested to affix to it his signature.

In behalf of the Faculty,

(Signed) JEREMIAH DAY.

THE BOSTON ATHENÆUM.

At the stated Quarterly Meeting of the Trustees of the Boston Athenæum, held April 9th, 1838, the following paper was read, accepted, and ordered to be recorded :—

Since our last meeting, our country has been called to mourn the death of one of its most distinguished men, the late NATHANIEL BOWDITCH.

The connection of the deceased with the Boston Athenæum was so beneficial to this institution, that the Trustees are urged alike by official duty and by private feeling to express their sense of his loss. This institution is deeply indebted to the late Dr. Bowditch for the zeal with which he labored to advance its interests. Finding it weak, he determined, in connection with several other public-spirited individuals, to make it prosper. Their appeals to the munificence of our wealthy citizens were successful, and the resources of the Athenæum were greatly increased. For several years Dr. Bowditch, continuing a member of this Board, aided in the application of the funds which he had done so much to procure, and the high rank which the scientific portion of our library enjoys among similar institutions in the United States, is in a great measure owing to his judgment and exertions.

But Dr. Bowditch has far higher claims to notice. He stood at the head of the scientific men of this country, and no man living has contributed more to his country's reputation. His fame is of the most durable kind, resting on the union of the highest genius with the most practical talent, and the application of both to the

good of his fellow-men. Every American ship crosses the ocean more safely for his labors, and the most eminent mathematicians of Europe have acknowledged him their equal in the highest walks of their science. His last great work ranks with the noblest productions of our age.

But it is not merely the benefactor of this institution, and the illustrious mathematician whose labors have given safety to commerce and reputation to his country, whom we lament. It is one whose whole life was directed to good ends, who combined the greatest energy with the kindest feelings, who was the friend of every good man and every good undertaking, the enemy of oppression, the patron of merit, the warm-hearted champion of truth and virtue. It is the companion, whose simple manners and amiable disposition put every one at ease in his presence, notwithstanding the respect which his genius inspired; and who could turn, apparently without effort, from the profoundest investigations, to take his part with the light-heartedness of a child in the mirth of the social circle. His heart was as tender as his intellect was powerful. His family found him as affectionate as he was wise; he was equally their delight and their pride. They could have no richer inheritance than his character, and nothing but such a character could afford them consolation for such a loss.

Filled with a conviction of the truth of what is here stated, the Trustees desire to express it. Therefore,

Voted, That the Trustees tender their sincere sympathy to the family of the deceased, for the loss of one as estimable in his private as in his public relations; and while they know that no adequate consolation can be afforded under such a calamity, they trust that some may be felt in the contemplation of a life so gloriously spent, and which has left such enduring monuments of excellence in every department, whether of science or of practical utility, to which it has been devoted.

Voted, That the Secretary be instructed to present a copy of the foregoing preamble and resolutions to the family of the deceased.

A true copy from the records.—Attest,

WILLIAM T. ANDREWS, *Secretary*.

THE LIFE OFFICE.

At a meeting of the Board of Control of the Massachusetts Hospital Life Insurance Company, held at the office of said Company, on the 19th day of March, 1838, convened in consequence of the death of the Hon. NATHANIEL BOWDITCH, a Director, and the Actuary of the Company, the following votes were unanimously adopted :—

Voted, That this Board have received, with great grief, the intelligence of the death of their late respected and beloved associate, Nathaniel Bowditch. They feel that in him they individually have lost a friend, the company an officer whose services were invaluable, and the country her citizen most eminent in science. For nearly fifteen years his extraordinary powers and attainments have been successfully devoted to the service of this Company. He took an efficient part in laying the foundation of the Institution. The business for which the Corporation was created, was novel in New England ; at its commencement, he accepted the responsible office of Actuary, which he continued to hold till his death. On this officer, more than any other individual, was devolved the arduous task of devising and organizing a system for conducting the affairs of the Corporation ; and the Board think it not too much to say, that it is to the clearness and simplicity of the regulations then devised and adopted, and the intelligence, fidelity, and inflexible resolution with which they were adhered to and executed by the Actuary, that the Company are mainly indebted for their success, and the public confidence they now enjoy. In reviewing the long connexion of this lamented officer with the affairs of the Institution, they cannot forbear to express their conviction, that his services have preëminently contributed to its present stability and prosperity. This is not a new opinion of the Board. The annual reports of Committees, accepted by this Board in the life-time of the Actuary, bear witness to the high estimation in which they at all times held his services ; and now that his work is ended, they perform a pleasing, though melancholy duty, in repeating and confirming it.

Voted, That while the members of this Board deeply lament

the death of their distinguished associate, they are not unmindful that there are others by whom it will be more acutely felt. To his distressed family they respectfully offer their warmest sympathy in this severe affliction, with which a wise and merciful Providence has seen fit to visit them. They well know that there is no adequate earthly consolation for the loss of such a parent; but they hope some alleviation may be found in the reflection that he lived long enough to perform all the duties of a long life, although not permitted to attain old age; that he has left them a bright example, and a name that will be known and honored throughout the world, so long as virtue and science shall be held in reverence.

Voted, That the Secretary be requested to communicate a copy of the above Votes to the family of the deceased.

True copy from the records.—Attest,

MOSES L. HALE, *Secretary.*

THE CITY OF SALEM.

At a meeting of the City Council of Salem, on Thursday, March 29th, the following Resolutions were unanimously passed in both branches:—

Resolved, That the City Council of the City of Salem have received with deep sorrow the intelligence of the decease of the Hon. NATHANIEL BOWDITCH, LL. D., of Boston, for many years a respected and honored resident of this his native place.

Resolved, That the City Council and the people of the City of Salem will ever cherish in grateful respect the memory of a townsman of singular simplicity, integrity, purity and benevolence of character, attaining from humble life, by his intellectual and moral energy, the highest honors of science, and the respect and gratitude of the community, as a public benefactor.

Resolved, That while the City Council acknowledge, with grateful pride, the honor reflected from his elevated character and pure fame upon the place of his birth, where his mind and habits were formed, and among whose citizens the largest part of his life was passed, and while they sympathize with his family and the whole

community in a loss so deeply felt by all the friends of learning, benevolence, and truth, they earnestly commend to the admiration and imitation of all, especially the young men of his native place, the noble example of active and patient industry, unconquerable perseverance, unbending uprightness and faithfulness in all the relations of life, and ardent love and constant pursuit of knowledge and truth, which were the foundations of a character of such honorable distinction and rare usefulness.

Resolved, That the people of Salem have ever retained a deep interest in the happiness and fame of their late lamented townsman, Dr. Bowditch, since he reluctantly left his native place for a sphere of more extensive usefulness in the metropolis of our Commonwealth; and they now receive and acknowledge with grateful sensibility the evidence of his generous remembrance of his first home in the last days of his life, contained in his liberal bequests to three of the most useful and important Institutions of our City.

Resolved, That as a suitable tribute of respect to the memory of Dr. Bowditch, a public discourse upon his life and character, be delivered in this City, and that a Committee be appointed with authority to make all the necessary arrangements to carry this resolution into effect.*

Resolved, That the Mayor be requested to transmit an attested copy of these Resolutions to the family of the late Dr. Bowditch.

SHIPMASTERS AND SEAMEN.

At a meeting of Shipmasters, Supercargoes, Officers, and Seamen, held at the Common Council Room, in Boston, on the 3d of April, Capt. Winslow Lewis was chosen Chairman, and Capt. James W. Sever Secretary.

The following Preamble and Resolutions were adopted;—

Whereas, in the death of Dr. NATHANIEL BOWDITCH, we feel

---

* [The city authorities of Salem have since appointed the Honorable DANIEL APPLETON WHITE to deliver the Eulogy on their illustrious son. They could not have selected a person better qualified than Judge White, by his talents, varied acquirements, and personal intimacy with the deceased, to do justice to the subject.]

that the World has to deplore the loss of a distinguished Philosopher, our Country a most honorable and high-minded Citizen, and the Maritime Profession a Guide, Preceptor and Friend;—

Resolved, That a Committee of seven be appointed to act in concurrence with such Societies as were honored in bearing upon their rolls the name of Nathaniel Bowditch, and that any mode that shall be adopted to perpetuate the respect and regard with which we cherish his memory, shall have our whole and hearty aid.

Resolved, That all the members of the Nautical Profession, of this and of the neighboring ports, be respectfully invited to attend an adjourned meeting, to be called by the officers of this meeting, to join with us in such measures as may then be adopted.

Voted, That the following gentlemen form the Committee, viz. Captains Daniel C. Bacon, William Sturgis, Larkin Turner, Thomas B. Curtis, Winslow Lewis, Henry Oxnard, Caleb Curtis, Samuel Quincy, James W. Sever.

WINSLOW LEWIS, *Chairman.*

JAMES W. SEVER, *Secretary.*

THE EAST INDIA MARINE SOCIETY.

At a special meeting of the East India Marine Society, called for the purpose of noticing the decease and munificent bequest of the Hon. NATHANIEL BOWDITCH, late member and former President of said Society, the following Resolutions were unanimously adopted:—

Resolved, That the East India Marine Society have received with deep sorrow and regret the afflicting intelligence of the death of Dr. Nathaniel Bowditch; by which they have sustained the loss of one of their most honored, useful and important members; to whose eminent services and the great interest he has manifested during the long period of his connexion with them, evinced at the close of his memorable life by a most liberal bequest, their Institution is indebted for much of the usefulness and celebrity to which it has attained; and the surviving members of the Society will ever hold in grateful remembrance the services and liberality of one

with whom they consider it the highest honor to have been associated.

Resolved, That the members of this Society entertain the highest respect for the memory of the deceased; and while they acknowledge, with pride and gratitude, the inestimable benefits conferred upon them in their peculiar pursuits by the indefatigable zeal with which he has devoted the powers of his great mind to bring into easy and practical use the principles of Astronomy, applicable to Navigation, they, in common with the whole country and scientific world, deeply deplore his loss, in the midst of his usefulness, as a public calamity.

Resolved, That the members of this Society feel themselves under obligations to the deceased, which it is difficult for them to express, for his elucidating and simplifying the principles of Navigation, whereby their path over the ocean has been rendered plain and easy; and that he has, in his Practical Navigator, been indefatigable in his endeavors to raise and elevate the standard of Nautical Science among seamen.

Resolved, That this Society will receive with gratitude the liberal legacy bequeathed by the last Will of their late lamented member and former President, in token of his regard and deep interest in them, and that it shall be appropriated for the promotion of the general objects of the Institution, as provided by the said Will.

Resolved, That the members of this Society, while they most sincerely sympathize with the afflicted family of the deceased under their severe bereavement, derive some alleviation from the recollection that he has left behind him the imperishable monument of a life devoted to the great interests of society, and affording an example of extraordinary talents, untiring industry and perseverance, combined with extreme modesty and simplicity of manners.

Resolved, That the Corresponding Secretary be requested to transmit an attested copy of these Resolutions to the family of the deceased, and that they be furnished for publication in the papers of this city.

A true copy from the records.—Attest,

NATHANIEL GRIFFIN,
Recording Secretary.

ADDITIONAL NOTES.

In speaking, on page 42, of the late Chief Justice Parsons as an eminent mathematician, it should have been stated, in a note, that Dr. Bowditch says (Practical Navigator, p. 243, stereotype edition), "This method [of finding the true distance of the moon from the sun, a planet, or a star,] was invented by the author of this work, who also improved Witchell's method, and reduced considerably the number of cases. These improvements were made in consequence of a suggestion of the late Chief Justice Parsons, a gentleman eminently distinguished for his mathematical acquirements, who had somewhat simplified Witchell's process."

Dr. Bowditch was admitted a member of the American Academy on the 28th of May, 1799, and was chosen its President in 1829, and held this office till his decease. He received his degree of LL. D. from Harvard University at the Commencement in 1816. He was elected a member of the Royal Society of London on the 12th of March, 1818, and his diploma, on parchment, now before me, is signed, among other names, by those of Sir Joseph Banks, *President*, Sir Humphry Davy, Sir Davies Gilbert, Sir Everard Home, Dr. William Thomas Brande, Dr. William H. Wollaston, Dr. Thomas Young, and John Pond, Astronomer Royal.

Since the page (96) containing the beautiful lines of Hafiz, was struck off, I have met in J. D. Carlyle's "Specimens of Arabian Poetry," p. 64 (London, 1810), a different version of the same sentiment. Carlyle says, "The Persian verses seem to be a translation from our Arabian author." They are addressed "To a Friend upon his Birth-Day."

"When born, in tears we saw thee drown'd,
While thine assembled friends around,
With smiles their joy confest;
So live, that at thy parting hour,
They may the flood of sorrow pour,
And thou in smiles be drest."

DR. BOWDITCH'S SCIENTIFIC PAPERS.

The following is a complete and accurate list of the Papers contributed by Dr. Bowditch to the Memoirs of the American Academy of Arts and Sciences. It will serve to show the extent of his observations and the variety of his inquiries.

VOL. II.

New Method of Working a Lunar Observation.

VOL. III.

Observations on the Comet of 1807.

Observations on the Total Eclipse of the Sun, June 16, 1806, made at Salem.

Addition to the Memoir on the Solar Eclipse of June 16, 1806.

Application of Napier's Rule for solving the cases of right angled spheric trigonometry to several cases of oblique-angled spheric trigonometry.

An estimate of the height, direction, velocity and magnitude of the Meteor that exploded over Weston, in Connecticut, Dec. 14, 1807.

On the Eclipse of the Sun of Sept. 17, 1811, with the longitudes of several places in this country, deduced from all the observations of the eclipses of the Sun, and transits of Mercury and Venus, that have been published in the Transactions of the Royal Societies of Paris and London, the Philosophical Society held at Philadelphia, and the American Academy of Arts and Sciences.

Elements of the orbit of the Comet of 1811.

An estimate of the height of the White Hills in New Hampshire.

On the variation of the Magnetic Needle.

On the motion of a pendulum suspended from two points.

A demonstration of the rule for finding the place of a Meteor, in the second problem, page 218 of this volume.

VOL. IV.

On a mistake which exists in the solar tables of Mayer, La Lande, and Zach.

On the calculation of the oblateness of the earth, by means of the observed lengths of a pendulum in different latitudes, accord-

ing to the method given by La Place in the second volume of his "Mécanique Céleste," with remarks on other parts of the same work, relating to the figure of the earth.

Method of correcting the apparent distance of the Moon from the Sun, or a Star, for the effects of Parallax and Refraction.

On the method of computing the Dip of the Magnetic Needle in different latitudes, according to the theory of Mr. Biot.

Remarks on the methods of correcting the elements of the orbit of a comet in Newton's "Principia," and in La Place's "Mécanique Céleste."

Remarks on the usual Demonstration of the permanency of the solar system, with respect to the Eccentricities and Inclinations of the orbits of the Planets.

Remarks on Dr. Stewart's formula, for computing the motion of the Moon's Apsides, as given in the Supplement to the Encyclopædia Britannica.

On the Meteor which passed over Wilmington in the State of Delaware, Nov. 21, 1819.

Occultation of Spica by the Moon, observed at Salem.

On a mistake which exists in the calculation of Mr. Poisson relative to the distribution of the electrical matter upon the surfaces of two globes, in vol. 12 of the "Mémoires de la classe des sciences mathématiques et physiques de l'Institut Impérial de France."

Elements of the Comet of 1819.

Dr. Bowditch was also the author of the article on Modern Astronomy, in the North American Review, vol. XX. pp. 309–366. In the Monthly Anthology, Vol IV. p. 653, there is a brief account of the Comet of 1806, drawn up by him at the request of the Editors. It is believed that this is the whole amount of his contributions to our periodical literature.

ELEGY

ON THE DEATH OF

DOCTOR BOWDITCH,

The distinguished Translator of the "Mécanique Céleste."

Revered, beloved, adored by all that knew
The worth and wisdom of thy matchless mind!
Even thou hast paid the tribute that is due
From us to Death—the despot of mankind.

For that we weep not—none must linger here—
And none would linger, when life's oil is spent;
As strength and health's frail glories disappear,
Fate calls us hence, and Nature cries "*content.*"

Children may weep; but 't is for men to know
How just the judgment is that dooms decay;
And though we sigh, we bear the lethal blow,
And learn from God the lesson to obey.

So did'st thou feel the necessary law;
So like a sainted sage did'st thou expire;
Calmly thy sense its flickering taper saw,
Meekly thy soul gave up its fainting fire.

The eye—the voice—the hand, are useless now,
Those clay companions of a nobler guest;
Cold as sepulchral sculpture is thy brow—
Still as the rock thy thought-deserted breast.

But not the godlike, intellectual flame,
With these is quenched. The mind that searched the stars
Yet blooms—increased in knowledge—yet the same;
Time spares the spirit, but the body mars.

The world is poorer than 't was yesterday—
But heaven is richer. We have lost indeed
A guide and teacher; but the angels may
Rejoice that thou from fleshly chains art freed.

Now shalt thou know the whole of that strange tale,
A part of which thy genius grasped before;
Thy Father's hand his secrets shall unveil,
And of his myst'ries ope the sacred door.

Thou shalt know all—while we who, left behind,
In darkness grope, are still the slaves of doubt;
Thou seest every thing, but we are blind,
Fearing to puff this mortal candle out.

Pure peace and satisfaction to thy soul
Shall the disclosure of heaven's wonders bring;
Across thy faith no curt'ning clouds shall roll,
But all be told thee by thy sire and king.

Must we remain, and never read the page
Whereon those starry characters are writ?
No—thank the warnings of approaching age—
Ourselves, like thee, this earthy globe must quit.

Sublime, like thee, our weaker view shall scan
The frame and motion of yon orbs of light,
Forget what 't is to act and think as man,
And see the future opened on our sight.

With such assurance let us cease to sigh,
Live like the wise, and die as fits the brave;
The tomb is but an entrance to the sky—
The road to bliss lies through the mouldy grave. T.

These beautiful lines appeared anonymously in the Boston Daily Advertiser of March 22, a few days after the decease of Dr. Bowditch. Why does not the author reveal himself? [*herself?*] Any one might justly feel proud of being able to assert a claim to them.

ERRATA.

Page 12, line 13, after *millions*, insert *of miles*. This error occurs in about half the copies.
Page 36, line 5, for *twenty-three*, read *twenty-seven*.
" 61, Note, line 10, for 1828 read 1826.
" 43, line 11, after *office*, insert *of Actuary*.

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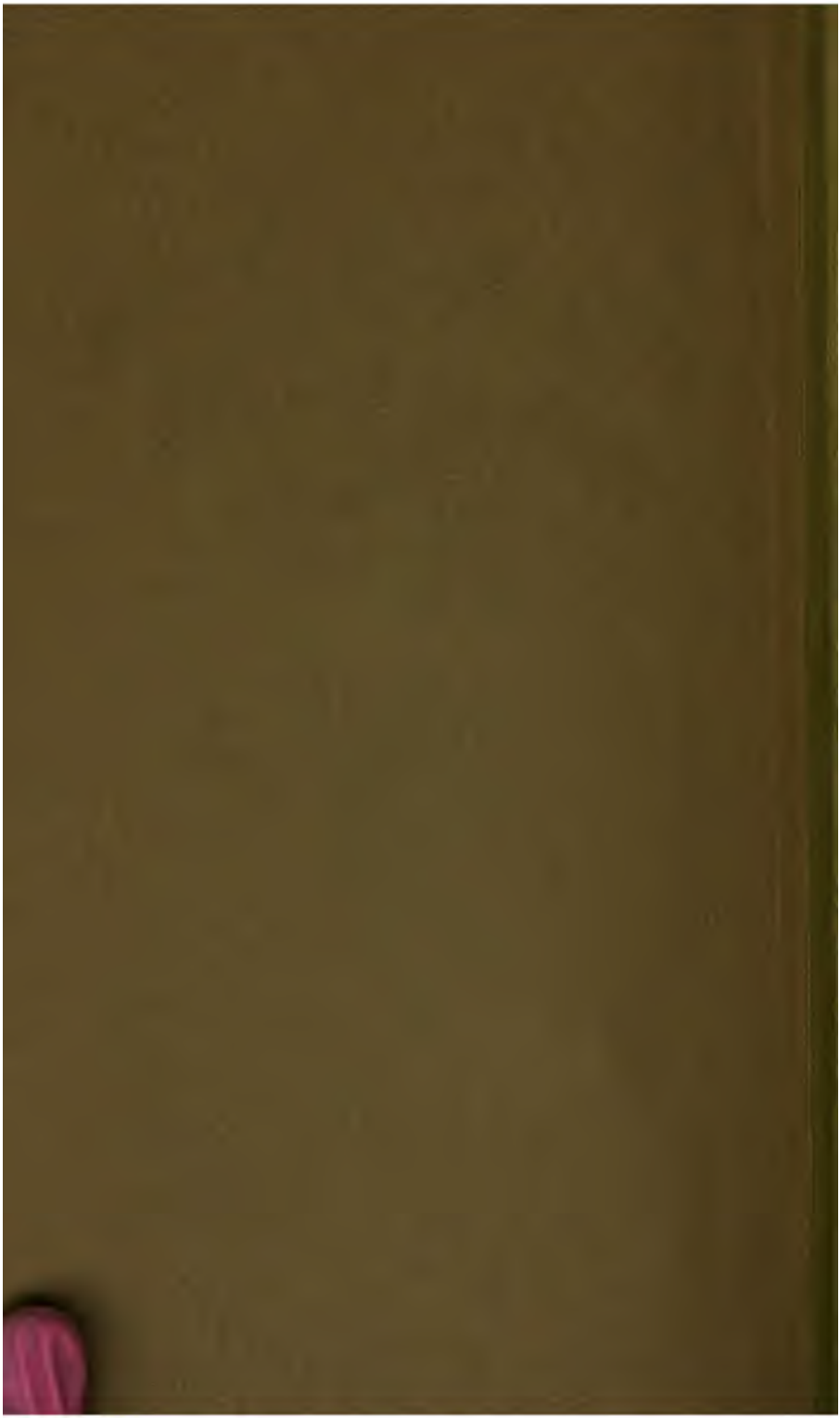

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